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MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.

EDITED BY

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WITH THE CO-OPERATION OF PROFESSOR E. B. TITCHENER, AMERICAN EDITORIAL REPRESENTATIVE, AND OF PROFESSOR WARD, PROFESSOR PRINGLE-PATTISON, DAVID MORRISON, M.A., AND OTHER MEMBERS OF AN ADVISORY COMMITTEE.

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MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY

I.—ARISTOTLE'S REFUTATION OF 'ARISTOTELIAN' LOGIC.

By F. C. S. Schiller.

It has become a custom (having the force of law) in Oxford to restrict the study of Aristotelian Logic almost wholly to the *Posterior Analytics*, and to profess boundless admiration for this section of the *Organon*, on the ground that in it is laid down the theory of Science for every subject for all time. Now this is not only scientifically wrong, but also trebly unjust to Aristotle. For in the first place it mutilates Aristotle by ignoring his very extensive, varied and historically important contributions to other branches of logical theory. It also misrepresents Aristotle, because he never for a moment imagined that his theory of 'science' was applicable to ethics and to most of the subjects we now consider scientific, but expressly exempted from its control a large and vitally most important portion of our intellectual functions. Lastly it diverts attention from the urgent problem of evaluating the great masses of reasoning in natural science and ordinary life, which admittedly *do not claim* the 'exactness' which Aristotle attributed to theology, astronomy and mathematics, and which continues (however wrongly) to be claimed for mathematics, and from the illuminating suggestions towards such an evaluation contained especially in Aristotle's handling of 'Dialectic'. It thus tends to narrow the scope of 'logic' to the sterile and impotent contemplation of an impossible 'ideal,' which is utterly irrelevant to the realities of human knowing and insuperably obstructive to all progress of logical theory. An attempt, therefore, to point to other aspects,

even of Aristotle, than that which it is convenient to emphasise for the purposes of the Honour School of *Literæ Humaniores* can expect to meet with no favour and little comprehension. I shall however make such an attempt, because it can be clearly shown that, with the openmindedness and candour of a great original investigator, Aristotle had in fact anticipated to a remarkable extent some of the subtlest and most incisive of the objections with which logical Formalism has been pierced in recent times.

My general problem I should myself prefer to denominate that of logical Casuistry, or as the question—How do rules ever apply to cases?—but it will probably sound more familiar to many under the vaguer name of the relation of particulars and universals. It may certainly be said to lurk in one corner of that vast field of inconclusive controversy, but the description is by no means adequate, and the decisive importance for Logic of my problem has not been at all widely perceived. Before this, however, can be made clear, it will be necessary to consider the material Aristotle has provided in the three contexts in which he touches on the problem, *viz.*, in pure logic, in applied logic, and in concrete science, and to discuss whether his failure to make use of it in his theory of demonstration should for ever debar us from using it.

I.

The familiar doctrine of Contradictory Opposition, *viz.*, that universal affirmative and particular negative, and again universal negative and particular affirmative, predications cannot both be true together in the same matter, but that one of them must be true and the other false, makes its historical *debut* in the *De Interpretatione* of Aristotle.[1] It is to be noted indeed that it does not there appear in the explicit, absolute and unqualified form in which it is now commonly stated, but it cannot be denied that in the *Prior Analytics*[2] it is appealed to to justify the disproof by reduction to absurdity. Hence it will hardly be disputed that the doctrine of the Opposition of Propositions has a right to regard itself as one of the pillars of 'Aristotelian' Logic. Indeed it must be confessed that not only would the whole scheme of the syllogism but also the very notion of formal proof (as they are ordinarily held) be knocked out, if it were to be denied that the truth of a universal affirmative judgment excluded that of a particular negative. Nay, it might plausibly be contended that such a denial would eviscerate even the Law

[1] 17 *b* 26 f., 19 *b* 35. [2] II. 11, 62*a* 11 f.

of Contradiction of all applicable meaning, and leave it suspended in the air as an impotent threat that could never descend upon earth to blast the most impious quibble. For if it should be possible that the truth of a general rule was compatible with its falsity in its application to any particular case, it would seem that it could never be asserted *a priori* to be impossible that A should both be B and not be B on the particular occasion under discussion. The contradictory opposition of A with O and of E with I, therefore, cannot be abandoned by orthodox 'Logic' under penalty of annihilation.

II.

Nevertheless when Aristotle comes to apply his theoretic analysis of thought to actual reasoning in the *Topics*, and to study the 'fallacies' into which reasoning may in practice fall, he sees that the actual situation is far more complex than he had supposed, and finds it necessary to modify considerably the rigour of his doctrine, and implicitly to deny that A and O are always incompatible.

Put quite abruptly, the modification is this: that what is in general true cannot be on occasion false is not itself in general true, but may be in certain cases false. Or rather, *though* true in general, it is in special cases false. Truth in general (ἁπλῶς) is not incompatible with falsity in particular cases (τισίν). This means of course that the truth of an A proposition *is* compatible with that of an O proposition, and seems directly to contradict the doctrine of the *De Interpretatione*. This latter is not referred to, but in the *Topics*, II., ch. 11, the peculiar constitution of general truth which leads to these results is fully set forth. It is first stated that if a thing is true in some respect it may also be so in general, ἁπλῶς [1]—*i.e.* if I is true, A may be. What is in general impossible, cannot be in any respect, anywhere or at any time—*i.e.* E excludes I. Then come the objections (ἐνστάσεις). Men may be disposed to particular virtues, without being in general good men. Perishable things need not perish in a particular time. When one is ill, one may benefit by drugs which would otherwise be harmful. To sacrifice one's father may be right among the Triballi. There follows a definition of 'general' truth (ἁπλῶς) as that which is predicated without any qualification. On this an attempt is based to distinguish between general truths which are absolutely true and such as become false when a qualification is added. The examples are given that it is not ἁπλῶς right to sacrifice

[1] 115 *b* 12 f.

one's father, but only among the Triballi, whereas it is unreservedly right to honour the gods. This latter example, though it need not be more than accommodation to popular prejudice, may hint at a realm of necessary objects which can somehow so impress our fallible minds as to guarantee the absolute truth of our opinions about them; but it would have been more pertinent to get a better exemplification of an absolute rule than one which literally commits Aristotle to honour all the most fiendish gods with the beastliest rites. Also one would like to know, if the commandment 'thou shalt honour thy father' is falsified by the questionable methods of the Triballi in (ambiguously) 'honouring their fathers' with a sacrifice, wherein lies the formal difference between rules which admit of qualification and those which are absolute. It may even be contended that the former are not here called ἁπλῶς true, though their general truth would seem to be implicitly acknowledged in the objections, and we shall find this doctrine unequivocally asserted elsewhere. At any rate two points of capital interest emerge: (1) the ἐνστάσεις are not refuted, and (2) what they involve is that a rule true in general need not be so under a qualification. Hence an A proposition which is true in general does not exclude the truth of an O proposition in a special case.

We pass next to the *Sophistici Elenchi*, and in particular to the two paralogisms which Aristotle calls that of *Accident* (παρὰ τὸ συμβεβηκός) and that of *Secundum Quid* (παρὰ το ἁπλῶς ἢ μὴ λέγεσθαι), and discusses in chapters v., xxiv., xxv.

The first of these is *not* what is now called the Fallacy of Accident and described as a mistake in applying a general rule to a particular case. Aristotle's Paralogism of Accident is defined in chapter v. as arising when what can be truly predicated of a thing is thought to be also predicable of its accidents. Thus it cannot be argued that because dogs can be yellow and can have fleas, yellow can have fleas. This illustration is not in Aristotle, but his own are quite as trifling and a good deal more obscure, and indeed all seem to be blatant quibbles of a merely verbal kind.

In chapter xxiv., where he gives what he calls the 'solution of this paralogism, on the other hand, Aristotle argues as if it arose in the attempt to attribute to a subject all the accidents of its attributes. This is evidently the converse of the former description, and would seem to show that Aristotle did not distinguish between these two cases, which together restrict the field of exemption from this fallacy to judgments which state the essence, *i.e.*, to definitions alone. All other predications, being concerned with the relations of essence and

accidents, are liable to this fallacy, which we may describe, more generally, as springing from unclearness as to what is 'essence' and what 'accidents' in any subject, and from an erroneous belief that a subject and its attributes must have all their 'accidents' in common.

It will be noted (1) that the nature of this paralogism is made to depend on a metaphysical rather than on a logical distinction, *viz.*, the relation of 'essence' and 'accident,' and (2) that practically the whole field of scientific investigation lies within the realm of the Aristotelian 'accident'. (3) It is not a *formal* fallacy, *i.e.* it cannot be detected by reasoning, but only by scientific knowledge of what qualities of a thing are essential and what accidental. Hence (4) its outbreak in scientific investigation can never be predicted or guarded against in advance. We can only know that we have fallen into it *ex post facto*, when the issue has falsified our expectations. (5) The situation, therefore, is a very serious one, and it is deplorable that this should have been obscured by the trivial and jocose character of Aristotle's illustrations. Historically no doubt it was inevitable that the difficulties of scientific research should first be noticed in the forms in which they cropped up in the schools of reasoning conducted by the sophists and rhetors; but it is not to the credit of subsequent logicians that for 2000 years they should contentedly have continued to treat them in a spirit of similar frivolity, and have conceived the subject of fallacies as the most trivial part of their science. It is in fact the most serious, as well as the oldest, part of the traditional 'logic,' and the only part which touches on the difficulties of real knowing.[1] (6) Lastly, as Aristotle himself implies in 180 *a* 14,[2] all his illustrations could also be classified (and that far more logically and intelligibly) under his next fallacy, and it is no wonder that the name as well as the logical material of Aristotle's '*Accident*' has passed on to the fallacy of *Secundum Quid.*

The notion of this fallacy also suffers from ambiguous definition. In chapter v. it is said to arise when a particular predication is taken as absolute, *τὸ ἐν μέρει λεγόμενον ἁπλῶς εἰρήμενον ληφθῇ*, and so is properly the 'Converse Fallacy of Accident,' which argues mistakenly from a particular case to a general rule, *a dicto secundum quid ad dictum simpliciter.* In some of his examples however the fallacious inference seems to go from the general rule to the particular case, *a dicto simpliciter ad dictum secundum quid.*[3] Most of the illustrations are

[1] Cf. my *Formal Logic*, ch. xxiii.
[2] *παρὰ τὸ πῇ οὖν καὶ ἁπλῶς φαίνεται.*
[3] 180 *b*, 4 f.

again childish, as that an Ethiopian is both black and white, because his teeth are white; but Aristotle admits that other cases are hard to detect.

That there is no real incompatibility between the truth of a rule in general and its falsity in a special case is very explicitly recognised in 180 *a* 26 f. and *b* 5 f. It is said that "contraries and opposites" (presumably contradictories) "and affirmation and negation cannot in general inhere in the same subject; but there is nothing to prevent both from doing so in a special way, relation or manner, or that one should do so in a way and the other in general. So that if the one is true in a way, and the other in general, there is no confutation." Again, "there is nothing to prevent a statement from being false in general, and yet true in a way or of something, or from being true in particular but not in general".

This last pronouncement seems decisively to attest the possibility that the truth in general of an A proposition may coexist with that of an O proposition in a particular case, though it leaves several obscurities in the Aristotelian account. Why, for example, should mistakes about the possibility of unrestricted assertion be called paralogisms? For surely both their making and their correcting must depend on scientific knowledge. How then could any one be expected to discover by logic when they occur in real reasoning?

The scope, moreover, left for this error also is enormous, for in every reasoning we may be said to apply a rule to a case or to infer a rule from a case,[1] and may do this wrongly. The principles moreover by which in both cases these paralogisms are to be refuted are so sweeping that even commentators shy at them. As Poste justly remarks,[2] "they would if admitted upset nine-tenths of the syllogisms ever constructed". It is greatly to Poste's credit that he should have noticed the dangers to the syllogistic notion of valid inference, nay to the whole of Formal Logic, which lurk in the doctrine that an assertion may be true ἁπλῶς and yet false πῇ, and we shall have to ask ourselves later whether he had any right to exempt the remaining tenth; but it will be more orderly to observe first how in his actual reasoning about concrete cases Aristotle uses (or ignores) his logical doctrines.

[1] I cannot agree with Mr. Joseph (*Logic*, pp. 547, 549 n.) that this distinction is unimportant, though I can see that it may appear so to a logic which has become so formal that it has ceased to distinguish between Deduction and Induction, and has come to regard the actual movement of thought as irrelevant to it.

[2] *Sophistici Elenchi*, p. 158.

III.

When we come to Aristotle's discussion of scientific questions which deal with 'contingent matter' we find to our surprise that the doctrine of contradictories plays no part, while the capacity of the distinction between what is ἁπλῶς and κατὰ συμβεβηκός, πῇ, τινί, etc., to solve problems is constantly exemplified, and the distinction is taken as axiomatic to an extent for which we were not prepared even by the *Sophistici Elenchi*.

To illustrate this situation it will be convenient, and probably sufficient, to cite a few passages from the *Nicomachean Ethics* which exhibit also the complete equivalence of the various antitheses to ἁπλῶς.

(1) For the opposition of κατὰ συμβεβηκὸς to ἁπλῶς we may choose vii. 9, 1, where the incontinent man (ἀκρατής) is said to be constitutionally and as such incapable of adhering to the true opinion and the right decision, though 'accidentally' he may abandon any whatsoever, and so also a bad one; whereas the continent man (ἐγκρατής) is as such able to retain the true opinion, though he may accidentally hold fast to any whatsoever, and so also to a false one. Hence it follows that though the action of the one is ἁπλῶς wrong, it may yet be on occasion good, while that of the other, though in general right, may yet be on occasion bad.

(2) The opposition of ἑκάστῳ to ἁπλῶς is prettily exemplified in iii. 4, 4, where it is said that the object of desire is in general and in truth the good, but yet for each man it is what appears to him good, so that what is actually desired by a bad man may be anything, and so also bad.[1]

(3) The opposition of τινί to ἁπλῶς is shown in vii. 12, 1-2. The existence of 'bad' pleasures does not prove that pleasure is not a good or even the good. For we must distinguish between goodness in general and goodness for a particular person. Now the 'bad' pleasures may be bad in general, but good for an evil nature, either (*a*) in general, or (*b*) upon occasion and for a time, or (*c*) they may at least seem so.

(4) A very instructive passage occurs at the very beginning of the *Ethics* in i. 3, 2, where Aristotle is apologising for the apparent variability of moral valuations (τὰ καλὰ καὶ δίκαια) by pointing to the similar variability of 'goods'. These too may occasion harm to many, as when a man's wealth (which is a 'good') occasions his destruction, even as may his courage (which is a καλόν). In both cases the lack of ἀκρίβεια is not however due to the arbitrariness of human

[1] *Cf.* also viii. 2, 2, and viii. 5, 4.

opinions, but to the contingent 'matter' of the world we live in.

(5) The most striking example occurs in v. 1, 9. The gifts of fortune are in general always good (*ἁπλῶς ἀεὶ ἀγαθά*), but not always to a particular person. This remark has seemed so contradictory to those who have not understood Aristotle's meaning that the text has been questioned. But it is clear that Aristotle is conscious of no contradiction, or even paradox. His doctrine in all these passages is the same, and it seems to him plainly true. The general validity of a principle does NOT in itself guarantee its application to any special case. What is true in general may be falsified in the case. For the circumstances of the case may be so peculiar that the rule ceases to apply to it. But such failure is no reason for denying the truth of the rule *ἁπλῶς*. It remains universally and eternally true (*ἁπλῶς ἀεὶ*)—in the abstract and apart from its application. But 'universally true' does *not* mean (or cover) 'true in all cases'. Its universality is not enumerative, and the value of a rule need not be destroyed by its exceptions. For they need not destroy its general applicability. Hence it may truly and without incongruity be said both that wealth is always a blessing, and that it is sometimes a calamity. Aristotle would have explained this 'accident' as resulting from the inferiority of sublunary *ὕλη*, and have consoled himself with the belief that ideally (*παρά γε τοῖς θεοῖς*) what was true always would be true also in all cases; but this does not hinder him from acknowledging the mundane facts, nor does he betray the slightest consciousness of having departed from his original position, and stultified essential doctrines of pure logic.

IV.

To us, however, the situation may well seem to be alarming. Was Aristotle, then, we may ask in wonder, wholly unaware of the piquant contrast subsisting between the doctrines he enunciates in these two contexts, and can nothing be found to mediate between them? Can we not take shelter under the famous distinction between 'dialectic' and 'apodictic'? It must surely be relevant to the difficulty, and may afford a means of escape. Might we not say, then, that Aristotle holds that it is only in 'dialectical' reasoning that the absoluteness of a rule suffers qualification in its application to the incalculable contingency of particular cases, while the pure universals, *καθ' αὑτὸ* and *ᾗ αὐτό*, being undistracted by the need of exemplification in cases, can pervade without resistance the defecated transparency of 'necessary matter,'

and so are exempt from this (and every other) form of mortal frailty? If so, we can comfort ourselves with the thought that the ideal of pure science preserves its integrity and that absolute universality remains the ideal, however impossible it may be to show that in fact any knowledge we have attains to this standard.

There is some plausibility, and even a modicum of truth, about this suggestion; but it proves to be quite inadequate to the gravity of the situation, and is in the end an irrelevant defence.

(1) It is true, of course, as we saw, that in the *Topics*[1] Aristotle had committed himself to the assertion that there might be rules which held absolutely, though his examples were unconvincing.

But as (2) he did not explain how or why this was so, we have merely the *obiter dictum* of an authority, and not a rational insight into the mode in which reasoning about 'necessary matter' escapes the danger of refutation when it misapplies a rule to a special case.

(3) There is nothing in his explanations that limits this liability of rules to fail to reasoning about 'contingent matter'. The difficulty, though it is only noticed in connexion with 'dialectical' reasoning, appears to be quite general and formal.

(4) Still less, of course, does Aristotle restrict his formal theory of reasoning to apodictic science. The probabilities of 'dialectical' reasoning are just as amenable as the certainties of 'demonstration' to the invincible analysis of the Aristotelian Syllogism. Hence the distinction between 'dialectic' and 'apodictic' would appear to do nothing to diminish the discrepancy between the theory of the *De Interpretatione* and the practice of the *Ethics*.

(5) Even, however, if Aristotle had applied this distinction to our problem and shown it to be relevant, what would the effect have been? It would have meant that all questions of natural science and human affairs escaped from the jurisdiction of logic and were emancipated from its control. Either a new, non-formal, logic would have to be devised that could take account of the peculiarities of their nature, or they would be left logic-less. In either case strict logic would be confined to 'necessary matter,' *i.e.*, in Aristotle's opinion, to theology, astronomy and mathematics.

But the Aristotelian realm in which truths can be absolute, because 'form' infallibly triumphs over 'matter,' would have to be severely cut down nowadays. No one now has the

[1] *Loc. cit.*, II. ch. 11.

hardihood to believe that the dogmas of theology are absolutely certain and indubitable.[1] Whether we accept them or not, we believe that 'faith' is needed for their apprehension, and, if we believe, are proud that our faith has overcome our doubts. Nor does any one now believe that the motions of the 'fixed' stars are directly inspired by the deity, and that they are composed of material other and better than terrestrial matter. The devoutest Aristotelian would find it impossible to maintain these beliefs against the spectroscope and the law of gravitation. Nor yet does any one believe that the motions of the heavenly bodies are perfectly regular and circular, and that they themselves are eternal, indestructible and immutable. The telescope has disillusioned us. We believe all this as little as that the earth is the centre of the cosmos: we have, in short, positive knowledge that Aristotle's astronomy is as grotesquely wrong as Hegel's.

(6) There remains, therefore, only one possible field for the Snark-hunting of absolute truth, *viz.* mathematics. But to a good half even of this region it is plain that the Aristotelian doctrine of mathematical necessity can have no application. We can all nowadays (more or less) see the difference (which escaped Kant) between *pure* mathematics and *applied*, and recognise that in applied mathematics the belief in the absoluteness of rules can find no sustenance. We have always to consider and observe whether the physical objects, which we treat as identical with the objects of pure mathematics, do in fact so nearly behave as if they were as not to falsify our calculations. We know that they are not in fact what we feign them to be; we do not know in advance whether this discrepancy between the fact and our hypothesis will or will not baffle our reckonings and defeat our purpose. Moreover, even where our calculations succeed in practice, we find that they are never exact; even things that allow themselves to be counted never behave as mere numbers, even shapes that allow themselves to be measured are never truly geometrical figures. Hence there is always an empirical factor in every application of mathematics to physics as to engineering, and there is no absolute necessity about *applied* mathematics.

(7) But is there even about *pure*? At a first glance it may

[1] It is unnecessary to discuss the metaphysical contents of Aristotelian 'theology'. For the history of philosophy proves to utter weariness that at no time and in no place has there ever existed anything like such universal agreement about metaphysical principles as would justify any one in describing any of them as absolutely certain necessary truths. Moreover Aristotle does not in fact treat them as such: his discussion of them is highly 'dialectical' throughout.

seem so. Pure mathematics seems to be the region where the mind moves most freely through ideal worlds of its own imagining, and can make its decrees absolute by fiat. But a more attentive inspection shows that even here qualifications are needed.

(*a*) In the last resort even the play of imagination seems to be conditioned by the empirical nature of our experience. How *e.g.* could a being that could only hear and smell be conceived to construct a geometry? No doubt the human spirit in mathematics is relatively free; it can lay down the laws of the games it chooses to play within very wide limits.

But (*b*) does not a fresh danger to absolute rigidity lurk in this? Where so many courses are open how can any *one* claim to be necessary? What is to stop a mind that can make its own objects and the rules for treating them, from multiplying its games without limit, from altering any object, from varying any rule, it has recognised? In pure mathematics the objective check, which nature imposes when we apply our ideas to reality and find that some work better than others and that some are inapplicable altogether, has ceased to operate. The mind's licence seems almost absolute. Just because it is so free to deal with ideal conceptions as it pleases, and has such power over them, it cannot be controlled, even by its own past and its own conventions. Nay, to progress, must it not refuse to be controlled? Must it not claim and exercise the right to extend every conception it has framed by (hitherto) unheard-of analogies, to apply it to the most special cases, to revoke, expand, modify and multiply every rule?

True, this can never be done save at the cost of more or less upsetting the old system of assumptions. Every such procedure generates a crop of paradoxes, complications, fictions and contradictions, from the standpoint of the older usage. But if the innovations improve the game, are they not technically justified? The opposition to them only means that the older minds have not yet grown used to them, and it gradually dies down.[1]

(8) A glance at the facts of mathematical history fully

[1] That in fact these innovations and extensions of conceptual ideals are usually prompted, not by sheer wantoning of intellectual energy, but by the need of solving some problem of *applied* mathematics, though significantly indicative of the motives and forces that ultimately control the ideal game, is not here relevant. The point is that among pure mathematicians also innovators may arise who invent new games and alter the rules of old ones, and that the conservatives cannot stop them, if their action is found to improve the game.

confirms the anticipations based on an analysis of the making of mathematical ideals. It reveals that the secret of development has always been the extension by analogy of an older notion, as a consequence of its *application to a new case* which necessitated a modification of the notion. If *e.g.* we transfer the notion of a 'triangle' from a plane surface to a curved, we part company with the Euclidean 'properties' of triangles, and embark upon uncharted seas of 'metageometrical' constructions. Our 'triangles' lose their old properties and acquire new ones. Whether it is true or not that a 'triangle' has its interior angles equal to two right angles, can no longer be discussed, until it is settled what sort of triangle is meant. For 'triangle' has become ambiguous, and the new 'triangles' both are and are not 'triangles,' according to the purpose with which they are regarded. An extension of the notion of 'triangle,' initially arbitrary, has limited the application of some of its most familiar 'properties'. Nor does it affect the logical instructiveness of the result that many geometers still refuse to play the game of the non-Euclidean geometries. It is perfectly easy to cite other illustrations; *e.g.* no mathematician any longer dreams of questioning the legitimacy of the notion of $\sqrt{-1}$. Yet the operation it symbolises was once justly described as an 'impossible' one, and the indispensable convenience of the symbol is the result of a long development.

Even in pure mathematics, therefore, there is no security in the past history of a notion or a symbol that it will retain its meaning. Strictly, indeed, it must be contended that it *must* change with every development of the system in which it is involved and that such changes are in mathematics rendered peculiarly visible by the transparency of the ideal structures in which they occur. It is only *in words* that '$2 + 2 = 4$' is immutably true. In reality its meaning has undergone expansion and modification with every extension of arithmetic, and that the words still serve as vehicles for an arithmetical truth is merely an accident. More commonly the development of ideas demands the discarding of the old formulas as no longer literally 'true,' and the truth they conveyed is expressed in a new form. Hence it must be admitted that in principle mathematical truth is immutable as little as it is unconditionally necessary. A mathematical formula can be altered, extended, transferred from one problem to another, and misapplied, and may have to undergo verbal modification and real qualification in the process. Its actual form is relative to its context and depends on the use

that has been made of it, and cannot be taken as absolutely true when its context is changed.

(9) Hence it often turns out that when a mathematical notion is generalised or transferred to a special or 'limiting' case it becomes paradoxical to the verge of absurdity, and can be preserved intact only by fictions. Thus for certain purposes it is legitimate to conceive an equilateral triangle as a special case of an isosceles, a square as a sort of rectangle, and even a circle as a polygon with an infinity of sides, though it is usually more convenient to uphold the distinctness of these conceptions even against a perceptual failure to discriminate between them. Similarly when it suits mathematics to conceive every line in a plane as *cutting* a circle in *two* points, it does not cease to uphold this truth when the line becomes a tangent and visibly *touches* the circle in *one*. Or again a circle may be conceived as a special case of the ellipse, in which the *axes* are equal and the *foci* coincide. But when this is done the ellipse loses some of its essential properties. It has no longer *two foci*, and it is no longer capable of cutting another ellipse in *four* points. If it is desired to uphold the universal truth of these properties, as for the purposes of analytical geometry, recourse must be had to fictions. Accordingly it is explained that though to the naked eye two circles can only intersect in two points, yet faith in the principle of continuity logically postulates the existence of two further 'points at infinity,' which remove the contradiction between the universal law of the ellipse and the facts of the special case of the 'ellipse' which is a 'circle'.

Such instances, which might be multiplied *ad lib.*, clearly show that there is no substance in the suggestion that in 'necessary matter' the discrepancy between the general principle and the special case cannot arise. It is possible that Aristotle thought so; but if he did, he was mistaken. That, moreover, the difficulty is one of complete generality and involved in the relation of rules and cases as such, without regard to the matter to which they were applied, might have been inferred from the fact that it raises the issue whether the law of contradiction requires us to *deny* that it is possible for a rule to hold in general and yet to fail in any particular case.

V.

Aristotle has not touched this general problem, and leaves us to reconcile his dicta as best we can. We must proceed, therefore, to take stock of the logical situation. And first as

regards Aristotle's own development, it is clear that as his subject becomes more concrete it forces him farther and farther away from his formal doctrine, until he comes into direct opposition to it. The possibility that an A and an O proposition might be true together was first mooted in the *Topics*. In the *Sophistici Elenchi* the unsuccessful application of rules to cases was still branded as 'fallacious,' but little was heard of formal validity in reasoning, and the risk of failure seemed almost all-pervasive. In the *Ethics* formal logic is completely set aside or forgotten, and it is treated as obvious that no rules can be applied without risk of failures due to the special circumstances of the case. Aristotle therefore can justly be quoted as confuting, as well as enunciating, the doctrine that A and O propositions are incompatible.[1]

But which of these two Aristotelian doctrines is the right one, that of Aristotle the formal logician, or that of Aristotle the scientific thinker? It can hardly be doubted that the latter is preferable. For circumstances do in fact alter cases and affect the application of rules. The problem of Casuistry is as real and as urgent for logicians as for moralists, though the former hardly seem as yet to have perceived it. It is not true that when a general rule has been laid down, or a law formulated, the logician's work is over. The problem of its application to actual cases remains, and constitutes the real problem for science. For it is clear that a rule or law which does not apply to cases is null and void. Even philosophy has long disclaimed the *κενὰ καὶ μάταια εἴδη* of empty universals in words, though in fact its pet notions have been mostly of this sort, even when they were called 'concrete'

[1] To complete his assertion of the compatibility of A and O by asserting also that of E and I does not seem to have occurred to Aristotle. But it is quite possible to do this. We frequently enunciate universal negatives, for which we claim truth in general, without thinking of all the particular cases. *E.g.* 'No one would ever dream of doing such a thing'. 'But A did it.' 'Well, yes, but he was a lunatic (or a genius, or a fool).' We had not thought of such instances to the contrary, but did not mean our rule to have reference to them; so we uphold our rule in spite of them. Objectively this possibility may yield a logical category for conceiving 'miracles'. A 'miracle,' we might say, is and is not a breach of a 'law of nature'; formally it is a breach, but practically it leaves the law intact, just because it is a 'miracle'. As before in the case of an 'accidental' exception to the law, what underlies both paradoxes is the fact that the universal law, just because of its generality, never fully fits the particularity of the case. Hence whether the 'law' is expressed positively or negatively, a case may always occur which slips through the machinery in which we are seeking to enmesh it. Theology might exaggerate this discovery to the detriment of science, were it not that for the past 2000 years it has shown such remarkable maladroitness in choosing its fighting ground.

Science at any rate is clear that inapplicable laws are meaningless. But it does not follow that, because a law is applicable, it applies. It may apply in the abstract, without applying also to any particular case. It may apply to the generality of cases, but not to this special case. It can never be presumed to be certain in advance of experience that the particular circumstances of the case will not defeat the application of the rule, and yet the ineptitude of our attempt will only be revealed to us after the event. For even if we were right in thinking that the case was one to which, in general, the rule applied, it would not follow that it was so for the purpose in hand. Thus forty shillings may be as good as gold for paying debts, but it does not follow that we should do as well to take them instead of two sovereigns on an excursion. Very often, however, it cannot be assumed that even the general relevance of the rule to the case is beyond question. We can never be absolutely sure that any particular situation has been rightly conceived as a case for the rule we choose to apply to it; for the situation always has many aspects and may be variously regarded, and some other way than the one we hit upon may be the right, or a better, one to choose. Lastly, we can never be sure of our rule or law. For unless we wilfully ignore the history of science, we must allow for the risk that the 'laws' we have formulated were based on inadequate knowledge of the facts they profess to regulate, and were more or less imperfect formulas; in which case their failure in an attempted application may be a precious indication of the way to correct them. Thus it is not true that 'fallacies of Accident' are scientifically unimportant, and that a logic which has relevance to real knowing can neglect them; they are continual occurrences in real research, and anything but jokes to those to whom they happen. The seriousness of a logic, therefore, may well be gauged by its seriousness in treating 'fallacies of Accident'

VI.

It is clear then that in real reasoning the disappointment of an expectation owing to an 'accident' has always to be reckoned with, and that absolute prediction of the issue is logically out of the question. Every deduction from premisses taken to be true is logically an experiment, and though the conclusion may be an intelligent anticipation of the fact, it always requires to be confirmed in fact. Hume, therefore, was quite right—matters of fact cannot be 'proved,' so as to satisfy the logical ideal of formal proof.

But is this an objection to matters of fact, as logicians

mostly think, or to the ideals of Formal Logic? The situation clearly has a vital bearing on several of the most essential doctrines of traditional logic, and specifically on the formal validity of inference, and the use of the principle of Contradiction, as well as on the Opposition of Propositions.

(1) It is clear that the 'material' Fallacy of Accident (ἔξω τῆς λέξεως), the 'formal' fallacy of Ambiguous Middle, Sidgwick's ambiguity from combining premisses unambiguous *per se*, the problem of application, and the imperfection of scientific formulas, the ὕλη of particulars, the inadequacy of universals, the risk of scientific prediction, the empirical nature of knowledge, the falsity of apriorism and the insecurity of *a priori* reasoning, are all of them *aliases* of one and the same fact—a fact which in some of its contexts had already obtruded itself upon Aristotle. Now this fact, in its most general philosophic form, is simply this, that we have in life to deal with a unique course of experience which never quite repeats itself, and that the intellectual machinery we have devised for dealing with it, being built on the fiction that there is absolute repetition, is always liable to break down unpredictably in the working. This is *not* a reason for abandoning the use of our intellectual devices or for abandoning ourselves to intuitions and illusions, but it *is* a reason for being on our guard against the incurable limitations of our 'science'.

It is a reason, further, for abandoning Formal Logic, or at least the notion of 'formally valid inference'. For no reasoning can ever by its form insure us against the risk of *de facto* failure from this cause. Whenever we put together two premisses for the purpose of drawing a conclusion, our inference may fail, because, although the premisses were true enough in general, they were *not* true for the purpose of the particular application we essayed to make, and in consequence our middle term became 'ambiguous'. Mr. Alfred Sidgwick has for years been trying to get logicians to see the seriousness and significance of this difficulty, and but for the ingrained frivolity of Formal Logic, he would doubtless have succeeded. But the difficulty of students of real thinking is this, that if they pose logicians with illustrations drawn from the actual working of the sciences, and ask *e.g.* how far the generally vegetarian nature of parrots will guarantee that the kea will not develop a taste for mutton kidneys, or whether the stability of nature and the eternity of its laws (which it is so convenient to assume) will justify an inference that radioactive substances in the earth's crust must have been as active 300,000,000 years ago as now, even though in that

case it would seem to be impossible that the earth should ever have grown a crust, they are met with blank indifference to the problems of science; while if they adjust their illustrations to the usual level of 'logic,' and ask what inferences can be drawn from the universal rationality of man about the behaviour of such and such a lunatic, they are held to be merely joking. So long, however, as logicians will not face the facts of actual reasoning and are content to juggle with words, it will be impossible to extract from the traditional logic any intelligible answer to the question—what in the end can a 'valid inference' be held to 'prove'?

(2) As regards the position of the 'Law of Contradiction' under the circumstances, it may be admitted at once to have a technical defence. When a general rule fails of application to a particular case, but is nevertheless held to remain true in the abstract, it can no doubt be said both that 'All S is P' (in general) and that 'This S is not P' (in the special case), and in words the two assertions certainly look contradictory. But they are meant in different senses, and refer to different contexts. The universal law did not explicitly contemplate application, and it is felt that the special case cannot be generalised. Hence there need be no technical contradiction, and nothing to confute the Law of Contradiction.

Still, *restat amari aliquid*. Attention is once more drawn to the curious evasiveness of the Law of Contradiction. This elusive principle escapes unscathed, because it has not attempted to grapple with the facts. Its jurisdiction is preserved intact only because it does not interfere with the course of actual thinking. It has been taken merely to announce, quite vaguely, that A cannot both be, and not be, B in the abstract. About what may happen in the concrete, it is silent. Only, when in fact, it turns out that A both is, and is not, B, at different times or places, or to different persons, or in different respects or senses, or in different contexts, or for different purposes, etc., and it is taxed with being incompatible with such facts, it can indignantly protest that there was nothing in its formula that denied the possibility that A might be, and not be, B under a qualification of such (or any) a kind.

The Law of Contradiction, therefore, is safe. But it is also useless. It has purchased safety by abjuring usefulness. For in actual thought we have not to do with abstract formulas, but with their application to cases. And in the actual cases there are always the modifications and differences which the formula omits. No two 'cases of A' are abso-

lutely identical. They are always different to some extent, in some sense, for some purpose. We want to know, therefore, whether the differences are grave enough to frustrate the application of the Principle of Contradiction to our case. Is *this* 'A' capable both of being, and of not being, B, even while we are dealing with it? Are we, or are we not, in motion when we are sitting still in a moving train, or when walking astern on the deck of a ship as fast as the ship is going ahead? But, alas, we get no answer. The Supreme Law of Thought is mute, and gives not even an oracular response. The truth is that in order not to risk the charge of falsity it has made itself inapplicable. But does not this make it also meaningless?

We seem to have moved far from our starting-place. Beginning with a series of apparently verbal incongruities in Aristotle, we have been led on to uncover the abysses of perplexity which they concealed, and have had to raise fundamental questions about the function, consistency, validity, and meaning of Formal Logic. Yet perhaps the greatest marvel is not that these questions should now have to be raised, but that in all the centuries during which Aristotle has been studied and logic has been taught, no one should have arisen who could put two and two together and discover that the logical calculus had made them five!

II.—THE MEANING OF REALITY.

By J. S. Mackenzie.

A good deal of recent philosophical discussion is concerned with questions about the affirmation of reality; but many of the differances of opinion with regard to it seem to turn largely on ambiguities in the use of the term. Such words as Realism and Idealism—which in themselves have hardly any meaning at all, but only take on the significance that particular writers happen to give them—tend to be used as descriptive epithets in ways that are gravely misleading. In politics such terms as Liberal and Conservative may serve their turn well enough; but in philosophy, where accuracy of expression is of fundamental importance, it seems a pity that important distinctions should still be indicated by words that tell us nothing. No doubt it is difficult to find words that are quite suitable to express the shades of meaning that are often involved in such distinctions; but even an unsuccessful attempt to discover them might be of some assistance. Hence, it seems worth while to try to distinguish the different ways in which the term Reality may be employed, and to ascertain how the divergent theories with regard to it arise. The following appear to be the most conspicuous senses in which the term is used:—

I. Reality may be understood in the sense of simple Being, or that which has a place in the Universe—the Universe meaning here the totality of that which is or may be apprehended by any actual or possible mode of cognition. In this sense, there is, as Plato urged, no opposite of being. For even nonentity has a place in the Universe, so far as it has any intelligible meaning at all. When thus understood, however, the term Reality is almost meaningless. What has no opposite, is without definite significance. At most it can only serve to indicate that something has been definitely apprehended. As soon as we are sure that we clearly know what we mean, we can say that what we are thinking of *is*. If, for instance, we know exactly what we mean by God, we may say that God *is*. As Hegel put it, it would indeed be strange if we could not ascribe to this conception the poorest

of all categories. But, in thus saying that God is, we are saying no more than what we may say of nonentity. Both *are—i.e.* they are *meanings*,[1] and in that sense they have a place in the Universe of actual or possible cognition. Evidently this sense of Reality does not carry us far; yet it is a sense in which the term may be and sometimes is used; and it is important to recognise it as such.

II. It may be used in the sense of definite Existence, or that which has a place in the order of normal human waking experience. In this sense the real is distinguished from the imaginary or illusory—from dreams, hallucinations, etc. This is probably the sense in which the term is most commonly employed. It marks a distinction which is of special importance in the ordinary affairs of life. But, obviously, it has not much speculative value. 'Dichtung' may, in its own way, be as real and as important as 'Wahrheit' and the reality of some things can hardly be supposed to be of the nature of existence. As Mr. Bradley says, 'the God which could exist would most assuredly be no God'. And, if Universals are real, their reality is not, in this sense, existence. They do not, *as universals*, occur at any point in an individual experience; though the *apprehension* of them may. But the *apprehension* of hallucinations is also real—*i.e.* the normal human waking consciousness is aware that such apprehensions do occur.

It seems clear that reality in this sense, though practically important, is theoretically very vague. What exists, in this sense, can only be very roughly determined. Yet for practical purposes it is clear enough. We can say that there are lions and there are no unicorns, that crows are black, that toothache is painful, and many millions of other *facts*. Such things are undoubtedly real in this sense. In what other sense they are real is a matter for further consideration.

III. It may be used in the sense of Truth or Validity. It is really the case that $2+2=4$, that the whole is greater than its part, that we ought to act justly, that contradictory statements cannot be logically made about precisely the same object, etc. These are not *facts*. They are not things that *occur* or that can, in their full significance, be verified in any particular instances. Rather, if they are true at all, they are true always and everywhere. It is in this sense that it may be maintained that poetry deals with reality, that 'beauty is truth, truth beauty,' and that many other things

[1] The word 'meaning' as here used seems to be equivalent to Meinong's 'Gegenstände'. In this sense, even such a term as 'round square' has meaning, though its meaning is self-contradictory.

are real which cannot be anywhere pointed out as existing. In this sense, as in the preceding one, reality has an opposite; but the opposite in this case is not the imaginary or illusory, but the false.

IV. It may be used in the sense of the positive, as contrasted with the negative. When Parmenides said that Being is and Non-Being is not, he was in effect excluding negativity from Reality; and there are several doctrines of Reality that appear to lead to the same result. Kant, as we all know, regarded the category of Reality as being derived from the form of affirmative judgment; and this contention at least brings out one very essential point in this way of conceiving Reality. According to this use of the term, a thing really is that which it can be affirmed as being: to negate is not to tell us anything about itself, but only to distinguish it from something else. This of course raises the question whether its distinction from something else is not an essential part of its being. It is, however, this absence of internal or intrinsic relation to other things that is essentially affirmed by the Parmenidean doctrine. This is a point to which we may have to return later. In the meantime we at least see what is implied in identifying Reality with the positive. The Cartesian conception of God as a being in whom all positive reality is contained, is one of the bye-products of this way of thinking.

Similarly, when it is urged that evil is unreal, because it is negative, it is this view of Reality that is being employed. How far such a view is tenable, we cannot here determine. It is sometimes said that this way of interpreting Reality involves a confusion between the existential 'is' and 'is' as the copula of the affirmative proposition; but this criticism does not appear to be altogether just. It is surely not a mere accident that the same word is used in the two cases. In affirming existence we seem to be placing something in some order or system; and the proposition is the way in which such placing is expressed. The only important question at this point is as to whether such placing does not involve negation as well as affirmation. In giving a thing a definite place—in saying It is here—are we not, in effect, saying also It is not there? When Spinoza says that 'determination is negation,' he seems to be allowing that it is so, and so denying the purely affirmative conception of Reality on which his own system is based. At least we can only escape from this result by holding, as Mr. Bradley does, that the form of judgment, or at least of the proposition (being relational), is necessarily erroneous.

But to discuss this would involve us in the statement of a complete theory of Reality, whereas at present we are only considering the various ways in which the term Reality is used. It must suffice for the present to note that there seems, at any rate, to be some sense in which evil is real, in which there is a real want, a real absence, a real difference; and yet all of these appear to involve something that is negative.

V. Reality may also be understood in an intensive sense, to express the degree in which anything occupies a place in some order, or, in other words, its distance from zero. In this sense it is contrasted with the slight, the trivial, the unimportant, the worthless. This view connects closely with the preceding one, the difference being that pure negation is now conceived as a zero point, from which things may be more or less remote. It is very necessary to take account of this sense of the term, especially in view of the way in which the conception of Degrees of Truth and Reality has recently been emphasised. Kant, it will be remembered, while identifying the pure category of Reality with the conception of the positive, affirmed also that this conception could be schematised as Degree. It seems clear that the term is often understood in this way, as when we use such expressions as 'really great,' 'a real pain,' 'no real difference' (meaning no difference of much importance), etc. This conception of Reality as something that has degrees has also a conspicuous place in the philosophy of Descartes. He maintained, for instance, that a substance has more reality than its attributes, that it is easier to create what has less reality than what has more reality, and so forth; and at least one of his arguments for the being of God depends upon these considerations. It seems clear, however, that this is a very precarious line of argument. When he speaks of ease and difficulty in creation, one has to ask at once: Ease and difficulty *for whom?* One is reminded of the address of the squirrel to the mountain in Emerson's poem:—

> "If I cannot carry forests on my back,
> Neither can you crack a nut."

As regards Degrees of Reality, it is no doubt very natural to say that a man has more reality than his shadow, a solid than a gas, the sun than a flash of lightning; but it seems clear that we are here using reality in the sense of something that has force, persistence, importance, or some other characteristic that gives it a greater value than something else. Such a way of speaking implies a standard of valuation; and it is evident that we may have many different standards. No doubt it may be possible to point to some ultimate standard;

and I understand that this is the contention of Drs. Bradley and Bosanquet. They hold that the Absolute is the ultimate standard of value, and that what approximates most nearly to the Absolute is most important and, in that sense, most real.[1] This may be true; but it is at least well to remember that what is less important may be, in other senses of the word, quite as real. Also, it is certainly doubtful whether this particular sense of the word is, for philosophical purposes, one that ought to be generally adopted. But in the meantime we are only concerned to bring out its significance.

VI. The term Reality may also be used in the sense of Actuality, or that which presents itself to us now and here, as distinguished from that which is merely potential. This is the sense in which we commonly say that something has been *realised*, or that the present is real, while the past and the future are not. The sense in which time is real is a difficult matter to determine, and cannot be discussed here. It is natural to regard the present as having a reality *for us* which does not belong to the past or future. Yet it is also natural to say that what is done cannot be undone, and in saying this we appear to be ascribing a certain reality to the past. In a strictly metaphysical sense, it is probably true that all parts of time are equally real or equally unreal. Again, it seems evident that, in a certain sense, what is possible has a place in reality, just as what is actual has. When Leibniz says that the actual world is the best of the worlds that are possible, it is evident that the worlds that are possible have to be thought of as having a determinate place in a certain system or order, from which the world that is actual is selected. What exactly the difference is between existing in possibility and existing in actuality, it is one of the most fundamental difficulties of the Leibnizian philosophy to determine. In one sense it would seem that they must both be included in reality; yet it would seem also that the one is real in a sense in which the other is not. This may suffice to show that we are here concerned with a distinguishable meaning of the term, though it does not enable us to distinguish exactly between this meaning and some others. We may be better able to do this after we have completed the list of the senses in which the term is used.

VII. Finally, Reality may be understood in the sense of that which is substantial or independent. This may be called the

[1] If we press this view, that the real is the valuable, we seem to approximate to pragmatism. But the one view starts where the other might end; and perhaps they never quite meet.

strictly metaphysical sense of the term. It is the sense in which Reality is contrasted with Appearance. There are of course many senses in which appearance is or may be real. What appears is real, in the sense in which everything that has a place in the Universe is real. Some things that appear are real also in the sense that they have a place in normal human waking experience. Appearances are also real in the sense that true statements can be made with regard to them. We can say at least that they do appear; and in most cases it is not difficult to make more definite statements with regard to the special mode of their appearance. Such statements, if true at all, are true absolutely and always. Again, many appearances are positive rather than negative, and have, from many points of view, a certain solidity, persistence, value and importance. They are, moreover, in many cases, actual and not merely possible. Thus they are, or may be, in many respects real. When it is said that, after all, they are unreal, what is meant is that they are not substantial or independently real. The way in which this sense of the term arises may perhaps be best understood by connecting it with the third of the senses that are referred to above. What is true, as I have noticed, is true absolutely. This will be allowed, in the sense here intended,[1] by every one except the most extreme of pragmatists.[2] Now, what is aimed at in this final sense of the term Reality is to give to Reality the same absoluteness as that which belongs to Truth. After we have found that something in a certain sense real, we may still go on to ask whether it is, in Plato's phrase, ὄντως ὄν, *i.e.* whether it is *truly* real—real in a sense that will hold universally and without qualification. This is the sense of the term that is philosophically most important. Its meaning may, I think, be more definitely brought out by noticing the chief theories that may be held with regard to Reality in this sense. The following is the most complete enumeration of them that I can make.

A. Negative Theories.

By a negative theory I understand one that either denies altogether the validity of the conception of absolute reality, or denies the possibility of knowing anything about it, or

[1] As already indicated, Truth is here to be understood in the sense in which it is opposed to Falsity, not in the sense in which it is opposed to Error, *i.e.* it means a true *judgment*, not a true *belief*. A judgment, as I understand it, must be either true or false. A belief may be more or less true, or more or less erroneous.

[2] Most pragmatists, however, appear to hold at least that their theory of truth is true absolutely.

that throws doubt upon its validity or upon the possibility of knowing about it. The chief types of such a negative attitude appear to be the following :—

(*a*) *Nihilism.*—This is the definite denial of any absolute reality. Its chief representative would seem to be Gorgias. His ground for this denial is the impossibility of conceiving ultimate reality in any coherent way. This, however, would seem to be only a ground for Agnosticism or Scepticism. Indeed, even if reality cannot be known in a coherent way, it may still be possible to apprehend it by some kind of mystical intuition. Kant and Bergson—and indeed, also, Bradley—would, I take it, agree with the general argument of Gorgias, but would not regard it as disproving ultimate reality. It does not seem to be possible to disprove ultimate reality. The utmost that can be shown is that its nature is not capable of being expressed in any way that is logically coherent.

(*b*) *Agnosticism.*—If Gorgias is not really successful in giving any ground for Nihilism, he may at least be regarded as the most complete agnostic. It may be urged, however, that even his argument against the knowability of the Absolute rests on the assumption that, if known, it must be known as logically coherent. This is practically denied by Kant and by Prof. Bergson, and even, in a manner, by Mr. Bradley. Hence it may be said that all that Gorgias can be held to establish is, at the utmost, that reality must be unspeakable. Most of those who are commonly described as agnostics, can hardly be said to go even as far as this. Herbert Spencer, for instance, had certainly a good deal to say about his Unknowable. Kant was more purely agnostic ; but his agnosticism was qualified by a form of pragmatism—*i.e.*, by the contention that we are justified in *believing* something about reality, though it cannot properly be known.

(*c*) *Pragmatism.*—I take pragmatism to be the view that the test of validity of a belief is not its logical coherence, but its necessity for the practical working of human life. Protagoras is perhaps rightly regarded as the founder of this view : but it is now best known by the writings of William James and Dr. Schiller, and I should think one might add Mr. Balfour. This view does not necessarily involve the denial either of absolute reality or of the possibility of knowing it ; for it may be—and this, I take it, is what Dr. Bosanquet has sought to show in his recent Gifford Lectures—that some apprehension of absolute reality is necessary for the proper working of human life. But, as the practical conditions of life are variable, pragmatism tends to represent our valid beliefs

about reality as being variable also. Hence it at least tends towards scepticism with regard to the apprehension of any ultimate reality. Most pragmatists, however, appear to have pretty definite views with regard to ultimate reality. The doctrine of Protagoras, for instance, seems to have rested on the metaphysics of Heracleitus. William James, in like manner, was strongly inclined in the end towards the somewhat similar metaphysics of Bergson.

(*d*) *Scepticism.*—Scepticism is sometimes understood in the sense of the affirmation of the impossibility of knowing absolute reality. But it seems better to call this agnosticism, and to reserve the other term for the attitude of simple doubt. Doubt is, of course, as Descartes urged, the basis from which all positive theories must set out. There would be no point in trying to prove anything if we did not begin by feeling doubtful about it. But scepticism as a definite attitude means the doubt that remains *after* we have tried to prove something and failed. Hence it generally attaches itself to some particular theory. Hume's scepticism, for instance, is essentially the doubt whether any knowledge of reality can be reached by the method of Locke. Such doubt may be removed—as, indeed, Hume was well aware—by the discovery of a better method. A general scepticism is hardly reasonable, since we can scarcely be sure that all possible methods have been tried. At any rate, it would seem that such a general scepticism could only rest on some definite doctrine of agnosticism. On the other hand, arguments about absolute reality are seldom quite convincing; and hence scepticism lurks in the path of every positive doctrine, and cannot easily be entirely extirpated.

B. Positive Theories.

The positive theories of reality have sometimes been distinguished as dualistic and monistic; and this is on the whole a convenient way of arranging them. It is, of course, open to an obvious criticism on the ground that there may be theories that are pluralistic. But pluralism does not, in general, mark as fundamental a difference as that which distinguishes dualism from monism. A monistic theory may quite well be pluralistic. The theory of Leibniz is a good illustration of this. Being a pure spiritualist, he is essentially a monist; but he is a pluralist in so far as he recognises a multiplicity of independent monads Hence Dr. Ward has introduced the term 'singularism' as the antithesis of pluralism. A system which is essentially monistic may thus be either singularistic or pluralistic. Dualism is thus under-

stood to mean a theory according to which there are modes of reality that are not only independent of one another, but essentially different in kind ; whereas pluralism only implies independence. This is not wholly satisfactory ; for it seems clear that there might be a pluralism that implies difference of kind as well. It is true, however, that there are not many actual theories that can fairly be interpreted in this way. Those who are not monists are nearly always content to dwell upon some fundamental antithesis, such as that between Form and Matter, Force and Matter, Mind and Body, Universal and Particular, the One and the Many, Good and Evil, as marking a difference of kind that cannot be transcended. Hence the distinction between Dualism and Monism is generally sufficient as a starting-point. If, however, we are to be exhaustive in our classification, I think we ought to recognise pure Pluralism as a possibility ; and I believe there are some philosophers who have held—and indeed who do now hold—a view that could be rightly so described. Again, a theory may be essentially singularistic, in the sense that it regards the whole of reality as an inseparable unity, no aspect of which is really independent of the rest : and it may yet be pluralistic, in the sense that it recognises within that unity many fundamental distinctions that cannot be annulled. A view of this kind can hardly be properly characterised by any of the terms that have now been referred to. I propose to call it ' Cosmism '. With these presuppositions I now proceed to classify the positive theories.

a. Dualism.—It seems best to begin with this, though it is probably true that human thought about the Universe tends to begin with a vague pluralism (such as that of fire, air, earth and water, or something still more indefinite), followed by a vague singularism (such as that of Thales or Xenophanes). But the fundamental antitheses that appear throughout our experience soon give rise to various types of Dualism ; and monistic theories generally grow out of the attempt to bring these antithetic aspects into relation to one another. Some of the chief antitheses may now be definitely noticed.

(*a*) *Force and Matter.*—The contrast between the permanent and the changing is of course one of the first and one of the most abiding ways in which a fundamental antithesis is recognised. It gives rise to the conception of a statical material, on the one hand, and a moving force on the other. We find this at an early period in such theories as those of Empedocles and Anaxagoras, the former of whom is definitely and the latter more vaguely pluralistic with regard to the material ;

while again the former is dualistic and the latter singularistic with regard to the moving force. A dualism of this kind would hardly be possible in modern times, and we need not dwell upon it here. But the antithesis between the permanent and the changing reappears later as that between being and becoming, *natura naturans* and *natura naturata*, noumenon and phenomenon, Reality and Appearance. But these antitheses will be noticed later. They are not really dualistic, since the two members in these antitheses are not regarded as real in the same sense.

(β) *Form and Matter.*—This antithesis is more subtle and more persistent than that between force and matter; and it is also one of the earliest to appear in the history of scientific thought. The Pythagoreans would seem to have been the first to give it definite formulation, and through their influence it became the basis for the chief antithesis that runs through the philosophies of Plato and Aristotle. In more modern times it is specially prominent in the philosophy of Kant. But here again, though it may have begun as the affirmation of two elements both equally real, it tends in the end to be regarded only as the statement of two aspects in one reality. Hence it does not continue to be a mark of Dualism, though it does continue to form one of the difficulties in the way of the formulation of a consistent Monism.

(γ) *Universal and Particular.*—The antithesis between the universal and the particular grows easily out of that between form and matter, as we see more particularly in the philosophies of Plato and Aristotle. It would appear to have been Socrates who first emphasised the universality of the formal aspect of reality. The antithesis between the universal and the particular was afterwards brought out in a way that almost led to dualism. This has again become prominent in some recent philosophies, especially in the views of certain representatives of the newer Realism. But in their case it seems to tend in the direction rather of pluralism than of dualism. This is a point that will be noticed later.

(δ) *Mind and Body.*—Here we come to that kind of Dualism with which in modern times we are most familiar, and that to which the term is often exclusively applied. There is but little trace of it in ancient philosophy, and it seems to have first gained prominence in the Cartesian school. It was afterwards much emphasised in the Scottish school of so-called Common Sense. But on the whole this type of Dualism also falls to pieces through the difficulties involved in the interaction of mind and body (which cannot easily be denied) and in the fact of knowledge itself. Hence, im-

portant as this antithesis is, there are very few who now regard it as a basis for philosophical dualism, though perhaps there are more who use it as an instrument for the establishment of some form of pluralism.

(ε) *Other Antitheses.*—It is hardly necessary to give special attention to any other antitheses as bases for an ultimate Dualism. The antithesis between the One and the Many, for instance, can hardly give rise to Dualism. What it tends to lead to is rather a certain form of Absolutism—the affirmation of the reality of the one as against the mere appearance of the many. This is essentially Monism and indeed Singularism, and it will be noticed shortly.

b. Monism.—Monistic theories are perhaps earlier in their development than dualistic ones; but the monism which precedes dualism is of a rather naïve type, such as that of Thales. In general, it is true to say that monism arises from the attempt to escape from the difficulties that are involved in dualism. The Eleatics, for instance, sought to escape from the dualism of the Pythagoreans or from that which seemed to be implied in the bi-polarity of Heracleitus, and their efforts finally resulted in the materialistic monism of the Atomists. Spinoza and Leibniz, in like manner, sought in different ways to resolve the dualism of Descartes; and their efforts led to a purely spiritualistic monism or to what is commonly characterised as Absolutism. Hence we may, on the whole, fairly regard Monism as the attempt to supersede dualism. Now, as the most prominent form of dualism is that which is based on the antithesis between mind and body, the chief forms of monism are those that endeavour to negate one of these terms, or that seek to find a unity that transcends their difference. The chief forms of monism are, consequently, Materialism, Spiritualism and Absolutism. The last of these seeks to transcend other modes of dualism, as well as that based on the antithesis between mind and body. All these forms of monism may be either singularistic or pluralistic. Accordingly we arrive at the following classification :—

(*a*) *Objectivism.*—The term Materialism is somewhat misleading. Matter has hardly any definite meaning except as distinguished from things that are not material. When this distinction is denied, the reality that is thus thought of can hardly be called matter. Hence I prefer the term Objectivism, which simply indicates that the subjective aspect of experience is ignored or treated as subordinate and insubstantial. In this sense it is probably the earliest attitude of philosophic thought. It is only later reflection that brings

the subjective aspect into prominence. The early Greek philosophers can hardly be called materialists; but the hylozoism which is their most characteristic attitude may certainly be described as objective. Objectivism, thus understood, may be either pluralistic or singularistic.

(1) *Pluralistic.*—The most definite form of this is Atomism. It must be remembered, however, that atomism involves the dualism between the full and the empty—atoms and the void. Motion also is difficult to account for without either resorting to a dualism or else, like the Epicureans, ascribing to the atoms certain subjective characteristics. Hence it is not a view that has much significance for modern thought.

(2) *Singularistic.*—The Eleatics may be regarded as representing this view, though I think their position is in some respects more akin to Absolutism. The modern mechanical theory of the world, when taken as metaphysically complete, and accompanied by the doctrine of epiphenomenalism, is a better illustration of what is meant. But it is now generally recognised that the subjective aspect of experience cannot be thus set aside; so that this view also need not here detain us.

(β) *Subjectivism.*—Theories of the subjective type, though later in development, retain more vitality. The Sophists—especially Protagoras—represent the earliest form of such theories in European thought, though in Oriental speculation they can probably be traced much farther back. In modern times they are best represented by some of the Cartesians and by Berkeley, though Fichte, Schopenhauer and many others may also be classed along with them. Here also we may distinguish between those who are pluralistic and those who are singularistic, but we have also to take account of a pure subjectivism, which can hardly be called either pluralistic or singularistic.

(1) *Pluralistic.*—The pluralists are in the majority, at least among those who can strictly be regarded as subjectivists, singularistic subjectivism being in general hardly distinguishable from absolutism. Berkeley and Leibniz may certainly be called pluralists; and I suppose that in our own time William James and Dr. Ward have to be reckoned in the same class. Dr. McTaggart, though on the whole an absolutist, or cosmist, has also strong affinities with this type. This form of subjectivism seeks to avoid dualism; but it has some difficulty in escaping from it. Even Berkeley has to recognise two fundamental modes of being—Minds and Ideas—which have nothing in common; and it would seem that there is even a third mode, *viz.*, Relations. What is contended, it would seem, is only that these modes of reality are

not separate and independent. Once this is fully recognised, however, the point of view becomes that of Cosmism, rather than Subjectivism. With Leibniz, on the other hand, the dualism appears chiefly in the form of the antithesis between finite and infinite and in that of the antithesis between activity and passivity. But, in order to indicate the weakness of theories of this kind, it is hardly necessary to point to any special forms of dualism. It is enough to say that, if spirits are absolutely independent entities, and are alone real, we have almost all the essential difficulties that are involved in dualism. In particular, the problems of interaction and knowledge appear to be almost, if not quite, insoluble. We seem to be entirely at the mercy of what has been called the 'ego-centric predicament'. The philosophy of Leibniz has at least the merit of being the one in which these fundamental difficulties are most clearly apparent. The recognition of them leads naturally to some form of singularistic spiritualism.

(2) *Singularistic.*—The two chief forms of this would seem to be Solipsism and Pantheism. The former, however, is generally regarded rather as a *reductio ad absurdum* of subjectivism than as a positive doctrine. Pantheism, on the other hand, tends to pass into some form of Absolutism or Cosmism. Pure Pantheism is probably best represented by some Oriental speculations. Stoicism, however, may be regarded as at least approximating to it. In modern times the doctrine of the 'eternal consciousness,' as set forth by Green, may perhaps be fairly described as pantheistic. The difficulty which it presents is that of accounting for the apparent existence of separate finite centres.

(3) *Pure Subjectivism.*—The recognition of our conscious experiences as being referable to some form of subject, whether interpreted in a pluralistic or in a singularistic way, may, however, be questioned; and the reality that is apprehended may then be treated simply as states of consciousness or pure experience. This view emerges as the result of the scepticism of Hume; but if it be interpreted as a positive theory of Reality, rather than as a form of scepticism, it may almost be described as a species of Absolutism. Such an Absolutism as that of Mr. Bradley certainly seems to approximate to this type. When it is maintained that nothing is real but pure experience as such, everything that is in any way apprehended must be held to have some degree of reality; and the only test of reality is then the completeness with which anything is experienced. As the distinction between subject and object is on this view evanescent, it may be held

to be hardly more subjective than objective in its character. It must, however, on the whole, be regarded as the purest type of subjectivism; yet, at the same time, it marks the transition from subjectivism to absolutism.

(γ) *Absolutism.*—The difficulties that are involved both in pure objectivism and in pure subjectivism lead very naturally to the attempt to find reality in some unity which transcends this contrast. Such a unity is generally described as the Absolute. It is difficult, however, to prevent even this doctrine from giving rise to a new form of dualism—*viz.*, that implied in the antithesis between Appearance and Reality. When we seek refuge in a transcendent unity, we have still to give some account of the phenomenal world. The way in which this difficulty is usually met is by some form of the doctrine of Degrees of Reality. The best statement of this doctrine is probably that contained in Mr. Bradley's chapter on Degrees of Truth and Reality. The general significance of this conception has already been to some extent indicated; but it may be well to make some further remarks upon it at this point.

With regard to degrees of truth, it seems important to distinguish between the truth of a judgment and the correctness of a belief. A simple illustration may serve to bring out the difference. It is true that 2 + 2 = 4; and, in spite of J. S. Mill, most people would be prepared to allow that this is true absolutely, without any doubt or qualification, when its meaning is rightly understood. Similarly, it is false that 2 + 2 = 5, or that 2 + 2 = 100; and the falsity of these judgments is again absolute. Again, the belief that 2 + 2 = 4 is a correct belief. The belief that 2 + 2 = 5, or that 2 + 2 = 100 is an erroneous belief; but the former is less erroneous than the latter. Similarly, it is, I should suppose, quite as false to assert that Bacon wrote the plays of Shakespeare as that Comte wrote them; but to believe the latter would be a much more extravagant error. There are thus degrees of error; and the amount of error in a belief may be so slight that, for certain practical purposes, it may be regarded as correct. It may also be true to say that all our beliefs are in some degree erroneous; since the full import of a judgment is seldom, if ever, apprehended with perfect clearness. In this sense it may be allowed that correctness and error are matters of degree; and that hardly any belief is absolutely correct or entirely erroneous. But I think it must still be maintained that, when the essential import of a belief is set forth in a definite judgment, conveying a quite precise meaning, that judgment is either true or false; and that, in this

sense, there is no such thing as a degree of Truth. This distinction was perhaps in the mind of Protagoras. He seems to have denied that there is any such thing as absolute truth, but to have admitted that some opinions may be more correct than others. May it not be said also that for the modern pragmatists, correctness takes the place of truth?[1]

So much with regard to degrees of Truth.

Now with regard to Reality, I have already indicated that there is a sense of the term in which it admits of degrees; but this is not the sense with which we are now dealing. When it is said that there are degrees of reality, the expression appears to me to be seriously misleading. What is meant, I think, is that there are degrees of adequacy in the way in which reality is apprehended; and this appears to be equivalent to saying that there are degrees of correctness in our beliefs. Of course, on the basis of pure subjectivism, this would be equivalent to degrees of reality; but not on any other basis. On any other basis, 'degrees of Truth and Reality' is a misleading expression. It serves only to indicate that in our ordinary apprehension of things we do not cognise reality, but have only more or less erroneous beliefs with regard to it. This is a doctrine of partial agnosticism, rather than a positive theory of reality, and is of interest rather for psychology or epistemology than for metaphysics; except in so far as it may be necessary for a valid doctrine of metaphysics to provide for the possibility of error.

With these preliminary remarks, we may now notice what appear to be the leading types of Absolutism.

(1) Reality of the unchanging One. The doctrine of Parmenides may, on the whole, be regarded as an early form of Absolutism; though it it no doubt possible to interpret it in different ways. It would seem that his 'Way of Truth' means the mode of apprehension that leads us to reality; while his 'Way of Opinion' is a somewhat vague way of recognising that we are sometimes confronted with what is only appearance. But if Reality is to be thought of as such a perfect and unchangeable 'sphere' as he seeks to describe, it is hard to see how there can be any explanation of illusory appearance; and he does not seem to have attempted any.

[1] This distinction seems also to have some bearing on the vexed question, whether there can be a theory of knowledge apart from metaphysics. If knowledge means the apprehension of truth, it does not seem possible to separate this from the apprehension of reality. But there may be a theory of the grounds of belief apart from metaphysics. According to the doctrine of Kant, indeed, it would seem that even our most correct and valid beliefs are never based on the apprehension of reality.

A similar difficulty is felt with regard to the more definite theory of Spinoza. How are we to account for the deceptiveness of the imagination? Spinoza's doctrine has the further difficulty that it contains a sort of submerged dualism, in the antithesis between thought and extension.

(2) Reality of the pure Universal. This description expresses at least one aspect of the philosophy of Plato. It is, from one point of view, simply an attempt to make the absolutism of Parmenides more precise, by bringing out its exact logical ground. It arises from the consideration of what is meant by eternal truth, as contrasted with the changing appearances of particular things. How cogent this line of thought is, has recently been shown by many writers who are, in other respects, far enough removed from Plato. But it leaves the world of γένεσις unexplained, and only evades the difficulty by ascribing to it a sort of half reality.

(3) Reality of the Unknowable. The difficulties involved in giving any definite account of the Absolute have led many of its most strenuous supporters to go at least so far with Gorgias as to allow that it cannot be known. This is not pure agnosticism, inasmuch as it involves the assertion that the Absolute is real; and, since something must be meant by the Absolute, this implies that it is not altogether unknown. In general, what is meant by saying that it is unknowable is that to know it would involve the transcendence of the relational mode of cognition, and that this is not possible to human thought. On this point Herbert Spencer and Mr. Bradley would appear to be at one, however far they may be removed from each other in other respects. This contention, of course, raises the question whether the objection to the relational mode of cognition is a valid one. If this objection could be removed, there would be no longer any real ground for the doctrine of the Absolute, which properly means that which does not contain relations. Now, it is certainly hard to see how that which does not contain relations can contain differences; and hence, if this is to be the meaning of the Absolute, it is not easy to get beyond the conception of the Parmenidean One.

(4) Reality of an object of Intuition. This is the mystical solution. If the Absolute cannot be known by means of relational thought, it may perhaps be capable of being apprehended by some form of feeling or direct insight. This is the sort of conception that seems to appear in many Oriental philosophies, in the Neo-Platonists, in Schelling, and in the fascinating, if somewhat elusive, speculations of M. Bergson.

If, however, in this mode of apprehension, relations are to be superseded, it seems clear that among these must be included the relation between subject and object. Knower and known would, in this mode of apprehension, somehow be one; and hence this form of Absolutism is not far removed from pure Subjectivism. A view of this kind seems to be involved even in the conception of super-relational consciousness that is set before us, if I understand him rightly, by Mr. Bradley. The difficulty about such a conception is that it either leads us to a doctrine of pure identity without difference, like that of the Parmenidean One; or else, if real differences are involved, it leads us to ask why it should not be possible to set forth these differences in some form of intelligible relationship. Reflection on this objection is what naturally leads us from Absolutism to that form of pure Pluralism which is commonly known as the new Realism.

c. Pure Pluralism.—The new Realism—of which there are now a large number of representatives [1]—has not yet been developed into a completely coherent system with a body of generally recognised doctrines; but its main contentions seem to be clear enough. It begins with the rejection of subjectivism, and in this it has the full sympathy of a larger number than its adherents appear to be aware of. But it also rejects both Monism and Dualism; since it does not maintain either that reality is essentially all of one kind or all of two kinds. Again, it recognises, with Plato, the reality of universals, but declines to follow Plato either in his contention that the universal alone is real in the strictest sense of the term or in his theory of a hierarchy of universals under the type of Good. But its most distinctive feature is its emphasis on external relations. It is its emphasis on these that sets it in marked opposition to absolutism, and that makes it more emphatically pluralistic than perhaps any other philosophical doctrine has ever been set forth (most others who are called pluralists—such as William James—being in reality only pluralistic monists, or perhaps dualists [2]). The term realism, as applied to this theory, does not seem to convey much meaning, except the rejection of subjectivism; and it is by no means certain that it rejects this as completely as some other theories do. At any rate, this is not its main point. But we may certainly take it as the type of pure Pluralism. A simple

[1] I take Mr. Russell to be its most authoritative exponent; but he appears to differ in some important particulars from other members of the school; and indeed I gather that he does not even call himself a Realist.

[2] This has been already noted by Mr. Bradley.

illustration may serve to make its main contentions clear. Let us suppose that I experience a red colour and afterwards a pain. Here there is a subject and at least two objects (possibly capable of analysis into more); and each of these objects is related to the subject in the way of sense-cognition. The two cognitions, moreover (and perhaps the two objects as well), stand to one another in the relation of sequence. Now, the redness of the colour, the painfulness of the pain, the relation of before and after, and the relation of cognition, are all universals, which occur or are present in this particular instance. All these circumstances—the universal characteristics, the particular occurrences, and the relations that hold between them—are distinct and independently real. None of them can be resolved into or explained by means of any of the others.[1] It is evident, I think, that there could hardly be a more complete Pluralism than this. The first objection that naturally occurs to it as a positive theory of reality, is that it is essentially a form of scepticism, rather than a positive doctrine. It simply analyses our experience of objects into its distinguishable aspects, and leaves them unexplained. Hence it has, rightly enough, been characterised as a form of radical empiricism (again, I think, much more decidedly such than the doctrine of William James). But, of course, it may be that we must be satisfied with such an empiricism, however much it may seem to baulk the fundamental aim of philosophy, which appears to seek, not merely analysis, but explanation. There is, however, a further objection, based upon the consideration of what seems to be involved in the apprehension of relations. Take, for instance, the case of before and after. This is a very simple relation, and one that may be supposed to recur in an endless number of particular cases. But there appears to be always a certain law to which it is subject—a law which may be expressed by saying that, when A is before B and B is before C, A is also before C. Now, this is no doubt a very simple law, and it may even be said to be self-evident or evident *a priori*. But it appears to be self-evident only because the relation does not present itself to us as a particular fact, but as a member of a series which proceeds in a certain direction. In other words, what we have to deal with is not simply a relation, but rather an order. Now, as soon as the conception of order is definitely introduced, we seem to be forced to abandon pure Pluralism and to be led in the direction of what I here call Cosmism.

[1] I take this to be the purest form of the doctrine. Some of its representatives, however, do not appear to go quite so far as this.

d. Cosmism.—What I understand by this term I have already sought to explain in a previous article on the philosophy of order.[1] Its meaning comes out, I think, most clearly in relation to pluralism. An order certainly implies a plurality, but it implies also that the various members within it are combined in accordance with a definite law. The events in time, for instance, constitute an order in so far as they are not merely distinct occurrences, but occurrences that are definitely placed in relation to each other within a single whole. The relations within such orders are indeed partly external, but partly, it would seem, they are intrinsic. One pink colour, for instance, may be redder than another; it may also be more lasting. The former relation between the colours is itself of the nature of colour, and is an essential determination of the place of that particular colour in the colour scale; the latter relation, on the other hand, is temporal, and is external to the colours as such. Now, if we apply a conception of this kind to the universe in its totality, and not merely to special orders, such as time, space, colour, intensity, value, and so forth, we reach a view of it which is definitely cosmic, and which cannot properly be characterised by any such terms as monism, dualism, or pluralism. Aristotle, among the ancients, and Hegel, among the moderns, may perhaps be taken as the best representatives of such a position;[2] but some of those who are also described by other terms may be said to approximate to this point of view—such as Plato and Spinoza and, in our own time, Mr. Bradley. Those who hold it—and this applies more particularly to Hegel—are apt to be classed as idealists; and this term is liable to be understood as implying subjectivism. Plato, however, was the first whose philosophy was definitely based on a doctrine of ideas, and yet he can hardly be regarded as a subjectivist; nor, I think, could Hegel be properly so described. The Hegelian concepts differ from those of the new Realists, not, as far as I can see, in being more subjective, but in being thought of, not as a number of cockle-shells in a row, but as a definite order. Whether Hegel is successful in working out such a conception of order, is quite another matter; but it seems clear at least that the belief in its reality and in the

[1] I may refer also, in this connexion, to the very admirable paper on 'The Principles of Logic,' by Prof. Royce, in Ruge and Windelband's *Encyclopædia of the Philosophical Sciences*, which seems to me to contain essentially the same view. *Cf.* Russell, *Principles of Mathematics*, pp. 207-217.

[2] I do not mean that either of them represents it with any completeness. Aristotle was hampered by the dualism of form and matter; and Hegel's treatment was perhaps too purely conceptual.

possibility of apprehending it, is the inspiring motive of his system. Nor is it easy for philosophy to abandon such a conception. All science aims at some such definite arrangement. Mathematical science, in particular, has always served as a model in this respect. Philosophy simply seeks to have a more comprehensive scheme. The reason, I take it, why such attempts at a cosmic construction are apt to be associated with subjectivism, is not that the philosophers who make them have any particular prejudice in favour of the subject of cognition rather than its objects, but only that in seeking for a comprehensive ordering of the facts of experience human life presents itself as a more perfect type of what is aimed at than any other particular fact. A life guided by purpose and by the thought of values comes nearer than anything else that we know to a comprehensive and self-explanatory order. Hence it is natural, in trying to interpret the universe by such a conception, to represent it, as Plato does, under the image of a world-architect arranging his materials in accordance with a pre-existing plan. It may be that such a conception is little more than a poetic metaphor; but it serves at least to indicate the kind of interpretation that we are in search of. It seems at least more intelligible to conceive the universe on the analogy of a human individual, or of a human society, than on that of a machine or of a collection of atoms.[1]

The general scheme of views about reality that I have tried to set forth, will probably seem to some to be pedantic. I expect it will be thought that several distinctions that I have drawn are merely verbal. Perhaps it may be well to anticipate such a criticism by noticing some of the cases to which it might possibly be applied.

I can imagine its being urged that the last of the views about ultimate reality that is here referred to is hardly distinguishable from the first. If Cosmism means that only the Universe in its totality has independent reality, is not this just what is meant by Nihilism? To this I should

[1] It must be remembered that, though from the point of view of Cosmism the conception of degrees of Reality seems inadmissible, yet degrees of adequacy in the apprehension of Reality have to be recognised; and it may well be that we cannot form any adequate conception of the structure of the whole. The growth of human knowledge may be compared to the efforts of a child to construct a picture out of a number of fragmentary pieces that have been given to it. The picture as a whole cannot be seen till all the fragments have been fitted together; but some of its main features become evident as we advance. The picture of the Universe, however, must be supposed to be a living picture; and the breaking of the whole into fragments is itself some part of the life of the whole.

answer that I fully admit that, from the point of view of Cosmism, the contentions of Gorgias—and, in particular, his first contention—must be allowed to be, in a certain sense, valid. But it is valid only against the attempt to emphasise the independent reality of some special aspect of the Universe against others. It is not valid against a view that includes all its aspects; and hence its force becomes positive, rather than negative.

Again, it might be urged that Cosmism is not distinguishable from a certain type of Absolutism. Here also I quite admit that it is seldom possible to draw the distinction with any sharpness. The essential difference I take to be that the absolutist recognises a shadowy world of appearance over-against the system of reality; but it is not easy to determine how far any particular writers have actually meant to affirm this. Some of those who seem to maintain the antithesis add that 'reality lives in its appearances,' which seems to amount to its withdrawal. The distinction itself would seem to be only an appearance, and to depend on the ambiguity in the term Reality to which I have called attention. If this is allowed, some forms of Absolutism can hardly be distinguished from Cosmism.

But, it may be urged further, is Cosmism really different from Pluralism? Does it not affirm the independent reality of all the distinguishable aspects of the Universe, and is not this Pluralism? It is so, I should answer, if the distinguishable aspects are not essentially inter-related.

This may serve as a brief indication of the way in which such objections might be met. But I cannot at present pursue them farther. What I hope is that the classification of theories that I have here given may at least serve to bring out the complexity of the problems that are involved.

There is often too much of a disposition, in philosophical discussions, to be satisfied with a few simple antitheses, such as Realism and Idealism, Materialism and Spiritualism, Naturalism and Humanism, Dualism and Monism, and the like. No well thought out view of the universe can be adequately characterised by any such terms. At the same time, there are undoubtedly fundamental differences in the ways in which we may regard it, and it is important to be as clear as we can about them. For my own part I have not found it possible to appreciate them properly without the help of a somewhat elaborate classification. It is probably a very imperfect one; but I have thought that an attempt which has proved helpful to myself might also be of some use to others. It may serve to disarm some further criticism

if I explain that the names of individual thinkers to which reference has been made at various points are used only for illustration. I am of coure well aware that in many cases they might almost equally well be placed under some other heading than the one under which they happen to fall. In some cases, indeed, I have referred to the same name as an illustration of more than one position. The more constructive and progressive a philosopher is, the more difficult, in general, it is to class him. It is more easy to have assurance about Gorgias and Hume than about Plato and Hegel. But I hope I have in each case made it sufficiently clear in what sense the writer who is referred to is being interpreted.

III.—SOME PRELIMINARY CONSIDERATIONS ON SELF-IDENTITY.

By Harold H. Joachim.

§ 1. Of all the strange things, in this most strange and interesting world, perhaps the strangest is our own incuriousness. We walk for the most part stolidly through life, guided by sense and tradition and prejudice, our footing (as we suppose) on the king's highway, "solid facts" to our right hand and our left, ourselves the most indubitable fact of all. And if occasionally, in a momentary flash of thought, our environment, the highway under our feet, our own selves, flicker and rock and crumble, we are not greatly perturbed. The "thought" (we readily persuade ourselves) was but a piece of dialectical fireworks. Brilliant and amusing it may have been, but not a revelation of the truth. How indeed could it be true, if by its illumination the solid facts of our environment lost the firmness of their outlines and wavered into illusions? Thought is well enough if confined within its proper limits; and like our prototype, Thrasymachus,[1] we summon it to our aid, when it suits our purpose. But the thought, which is not idle fancy, must be based upon the "facts". It can "abstract" from them, and "generalise," but it must return to them in the end. They are the sole criterion of truth and reality, to which thought itself must be accommodated. Hence, when our prejudices are threatened, we shall again follow the example of Thrasymachus,[2] and appeal *against thought* to what we are pleased to call "the concrete facts of actual life". We measure thought by those very "facts," which it has shown to be conglomerates of sense in part illusory and wholly obscure. We will not revise our estimate of the "facts," measuring them by thought. We will not recognise that in thought and reflexion we are *for the first time* beginning to apprehend our selves and our environment as they really are, to understand what precisely it is that we assume so positively as "fact".

Foremost amongst these "unquestionable facts" are our

[1] Plato, *Republic*, 340 C ff. [2] *Republic*, 343 A ff.

own Individuality and Self-Identity. It is a fact (or so we believe) that we are "Individuals," distinct from, and even exclusive of, all other things and people, and "the same" as ourselves through all the moments of our life. This exclusive individuality and this self-sameness throughout life seem so indisputable that we do not often stop to inquire what precisely they mean. It is worth discussing (we sometimes suppose) whether "we" have existed before birth, and shall survive after death: but in thus formulating these problems, we have already prescribed the limits within which the discussion is to move. We have already assumed our Individuality and our Self-Sameness during life as certainties neither requiring nor admitting criticism or elucidation —the solid foundation and the indubitable criterion of the whole discussion.

Yet, if there are "facts" which it is absurd for me to question, at least I should be able to state precisely *what* they are. My self-identical individuality may be an unquestionable fact: but clearly, if I am to accept it as such, I must understand what exactly it is that I so obstinately believe. In what precise sense am I undoubtedly an "individual"? And in what precise sense am I *now* "the same" as, *e.g.*, the boy, who, called by my name, went trembling to Elstree School in the autumn of 1879?

§ 2. Both for myself and for others, "I"—in the usual and unsophisticated sense—am an embodied spirit. The unity and individuality of our bodies, and their persistent (though changing) identity, are included in what we ordinarily mean when we refer to ourselves or to one another as self-identical individuals. Our body, we suppose, is one and individual at every moment of our life; and it persists one and the same throughout, although it changes. Disease and insanity, no doubt, raise problems which might lead us to qualify our ordinary attitude: but, normally at any rate, we should not regard ourselves as "one," if our body were two or more in such a way that its unity was destroyed. Nor should I normally recognise as "myself" a spirit which changed from body to body, or a body which embodied, simultaneously or successively, a plurality of disconnected spirits.

Now every body, as extended in three dimensions and as enduring in time, conforms to certain spatial and temporal conditions. Thus, *e.g.*, it 'occupies' a certain place, and the occupation is exclusive. It excludes every other body, and in so doing, is itself excluded by them. Its appropriation of one place is its expropriation from all other places. *Its* place, we may say, is at once its domain and its prison-

house:—the territory, within which it is privileged to be, and to which it is confined by the privileges of other bodies forming its spatial environment. We talk, indeed, of "penetration" and "chemical combination". But one body does not "penetrate" another. The nail advances only in so far as particles of the wood are displaced or retreat. And though two or more chemical elements are said to 'combine' and 'fuse' to form a new chemical substance, the ultimate infinitesimal constituents of the combining bodies are supposed (it would seem) to retain their privacy and reciprocal spatial exclusiveness. They are *juxtaposed* in the compound, and not transfused.[1] So, again, every body can change its place, *i.e.* can pass from place to place, but only by passing continuously through the intermediate positions: and a body can exist at different dates, but only if its being is a continuous duration so that there is no temporal break between its 'then' and its 'now'.

From these considerations, it would seem, we may derive certain *conditiones sine quibus non* of our own individuality and self-identity. For, so far as our body is concerned, we must surely suppose that "we" are subject to the general conditions of unity and persistence which apply to the spatially-extended and temporally-enduring things. And though even our body—*à fortiori* the embodied spirit which we call "ourself"—is *much more* than the solid which moves in space and endures through a period of time, yet, in being more, it can hardly be less. Its individuality and persistent identity must *at least* conform to the conditions just specified.

The living body then—even the living body of the self-conscious being—must occupy its own exclusive and excluded place at every moment of its life. It must exist somewhere and somewhen. Its changes of position must be connected by its continuous passage through intermediate positions in space; and the different dates, at which it exists, must be the successive phases of a duration which is a continuous passage in time. "I"—as a *bodily* individual—exclude, and am excluded by, all other things and embodied spirits. And if "I"—as an embodied spirit—am self-identical through life, both spatial and temporal continuity must be traceable through all the different positions in which, and all the different dates at which, "I" have existed. Given sufficient information, the successive events, in which "I" figure from my birth to my death, would show themselves, in so far as

[1] *Cf.* Arist., *De gen. et corr.*, 328 *a* 14, καὶ τὸ αὐτὸ τῷ μὲν μεμιγμένον, ἐὰν μὴ βλέπῃ ὀξύ, τῷ Λυγκεῖ δ' οὐθὲν μεμιγμένον.

they are or involve changes of my body, as phases of its continuous duration. And the different positions, which "I" occupy from my cradle to my death-bed, are all of them continuously connected in the unbroken passage of my body in space.

The observance of these conditions is not indeed enough to constitute the individuality and the identity of an embodied spirit: but the breach of them would suffice to destroy my claim to be a self-identical person. For I should neither be, nor remain, an individual, if my body could fuse with another body. And if, *e.g.*, an embodied spirit, in all other respects indistinguishable from myself, came into existence *here* two hundred years hence, or existed *now* in China—or even contiguous to, but expropriated from, the place now occupied by my body—none of these hypothetical personages would be myself.

§ 3. What we have said might appear plausible, if the living body were a Democritean atom or an aggregate of such atoms. Even then, however, the least reflexion would show us that the unity of the body—its unity as an atom, or as a sum of atoms—has been quietly assumed, and has in no sense been elucidated. Does the unity of an atom define the unity of "its" place, or is an atom one, because "its" place is one? And what do we mean by the unity of a place? Do the many atoms in a chemical compound, and the many compounds which constitute my body, sum themselves together into One, or are they summed together by the pressure of the neighbouring atoms? Or what other meaning can be attached to the Unity of a Many of this kind? These are amongst the questions, which we should be forced to ask, but should not be able to answer.

We have in truth made many impudent assumptions. We assumed that the unity of an atom was the exclusive occupation of a place: but we never inquired what "a place" might be, nor how in the spatial *continuum* a place could be "one" and condition the unity of its occupant. Again, we assumed that the "solid, which moves in space," is either an atom or an aggegate of atoms; and that, if it is an aggregate, its unity is the exclusive occupation of "its" place, *i.e.* of the sum of the places of its constituent atoms. Finally, we assumed that though our body "is much more than the solid, which moves in space and endures through a period of time, yet, in being more, it can hardly be less": and fortified by this specious principle, we applied to the living body what we supposed to hold good of the inanimate solid. Yet, if A is "more

than" B and therefore cannot also be less, it does not follow that A contains B, identical and unaltered, *plus* certain additions. The number 6 is "more than" 3, and friendship is "more than" abstract justice. But 6 does not possess, in addition to certain properties of its own, all the properties which characterise 3;[1] nor should I count you as my friend, if you exacted from me the utmost rigour of the law with the accompaniment of your kind regards and an invitation to dinner.

There was nothing to warrant these assumptions, and they forced us to maintain strange paradoxes. Thus, we were driven to deny all *chemical*, as distinguished from *mechanical*, synthesis. The chemical compound, we were compelled to say, is really a composite of juxtaposed atoms, a shuffling and re-grouping of unalterable infinitesimal solids. But the chemical compound acts and re-acts as one, as if it held together of itself: and it exhibits its own peculiar character and properties, which cannot be regarded as the aggregate—the sum or arithmetical balance—of the properties which its components manifest in isolation. And the single chemical constituents, the chemical atoms, which we regarded as so many inert solids, pushed from position to position in space like draughts on a board, exist only in our imagination. If we must attempt to describe the ultimate components of the compounds which we see, we shall be forced to think of them as centres of force, as "monads" or "entelechies" which *are* in so far as they act and re-act: as entities, whose being is to attract and repel one another, manifesting even a certain elective affinity in their attractions, a certain antipathy in their repulsions: and uniting not by juxtaposition in space but by a conspiracy of co-operation which issues in a unitary system of differentiated movement. A body—a chemical constituent or a chemical compound—is, it would seem, a centre of force or a system of co-operating centres of force: and its place is determined by its action, is the result of its individuality, and not *vice versâ*. The action of a body, or what it *is*, does not depend upon its place. On the contrary, its place is the sphere of its action, the expression of what it is. Its being is its action and reaction, and is thus essentially relative to the being of its fellows. It does not act where it is, but is where it acts.

And when we denied that the living body could be, or remain, an individual, if it fused with another body, the absurdity of our position reached its climax. For the living body

[1] *E.g.* 6 is not a prime.

is chemical process through and through. The formation, the disintegration and the re-formation of chemical compounds—what we call "assimilation," "nutrition," and "growth"—are life, or the inseparable characters of life. And if, in these processes, we will not recognise the fusion of other bodies with the living body, with its cells and tissues, how otherwise can we conceive them? To conceive nutrition and growth as the mechanical apposition of the atoms of the food to the atoms of the cells and tissues is *in principle* hardly less absurd than the view, that my flesh and bone are nourished and augmented by the addition to them of infinitesimal portions of flesh and bone in the bread which I devour.

§ 4. Let us then endeavour to make a fresh start. "All bodies," Leibniz has said,[1] "are in a perpetual flux like rivers, and parts are entering into them and passing out of them continually." But as regards the living human body, this is, if anything, an understatement, and a metaphor still too mechanical. For it suggests (what Leibniz himself possibly did not mean) that *only some* parts pass in and out of the whirlpool of life, whilst others persist unaltered: and it implies a channel through which the river flows. But our body is, from what we call its "beginning" to what we call its "end," a flux, a torrent, a whirlpool, for which it does not seem possible to assign any continent channel, and in which no single material particle appears to persist unaltered. Certain portions of my skeleton, it is true, appear to persist relatively unaltered throughout the greater part of my life, and even after my death. But they were not present at my first inception, and they formed no part of my living body in the first stages of its pre-natal development. And precisely in so far as we suppose them to be out of the whirlpool of chemical process, we regard them as "dead" and as "inorganic," as not constitutive of the living organism. They are, we may perhaps say, the channel which the river has cut for itself in the course of its flowing: but the river preceded the channel. Or, they are the shell deposited by the living creature:—a shell which emerged after the life was there, and remains as the mummified witness to the life that has gone.

The biologists tell us that we "begin" as a single cell, itself the fusion of two parent cells, which sets up a process of internal fissure and cell-multiplication. As generation of cells succeeds generation, there is a rapid increase in the

[1] *Monadology*, § 71.

number of the cells and a rapid progress in the differentiation of their functions and their structure: so that an animal body like that of a man is, already before its "birth," a federated society of many colonies of cells, and the colonies, and the cells which form them, differ greatly from one another both in visible structure and in their actions and reactions.

If now we date our own beginning as a living body from the fusion of the two primitive cells, and identify our own bodily death with the disruption of the federation of their descendants, the change and development of the cell-population between these two dates may be regarded as our "bodily life". And "our body" will signify the cell-population itself with all its vicissitudes during that period. Our "bodily life" will cover the growth and development of a society of living entities, and will cease when the society is disintegrated into groups, or perhaps into single units of its population. It will start, indeed, with a single cell, which is the fusion of two in one; and, for an appreciable period, "we" shall exhibit rather the unity of a family than that of a society. But for the greater part of our life, from a date long before our birth, "we" are a nation or a federated system of nations. Our body is a shifting population of diverse cells, all descended from the same ancestor. This population is differentiated into groups or colonies; and the colonies are united by so intimate a federation that they—and even the unit-cells which compose them—depend reciprocally upon one another for their "being" and their "persistence". For their "being" is their actions and reactions in which they respond to the actions and reactions of their fellows: and their "persistence" is the continuous stream of descendants in which they are reproduced, the reproduction depending upon (and itself being a contributory condition of) the activities of the other units, and groups of units, in the federation.

Thus, if I am asked whether my body, as a living whole, is "the same" as that of the boy who went in my name to Elstree School in 1879, the answer would seem to be "Yes—in a sense analogous to that in which the English nation is 'the same' now as it was in the days of Queen Elizabeth". We must however remember that the cells, which are the people of my body, are all descended from a single ancestor, itself a unit of this shifting population: and in this respect at least the analogy does not hold. If, on the other hand, I am asked whether any of the cells of my present body are "the same" as those of my former body, the answer is

clearly "No—unless you are prepared to identify the child with its parents and remoter ancestors".

§ 5. We have struggled, as it were, half-way up the cliff, and have reached a somewhat precarious foothold. Our safest course will be to proceed. But before we attempt to advance, it will be well—even at the risk of a fall—to examine a little more closely the place in which we stand. While I live, my body (we have maintained) is "one" and "the same," though nothing in it—with the exception of certain dead deposits of its life—no organ, no tissue, and no single cell, persists *numerically* the same from my inception to my death, or endures *unaltered* even for a brief fragment of my duration. The constituents of my body are succeeding generations of cells—an ever-shifting population, the units of which are one by continuity of descent. All the cells, which are at any time in my body, are differentiated reproductions of the "same" cell: and, in each of the lines of direct descent, the children and the grandchildren take up the work of their ancestors and contribute "the same" distinctive actions and re-actions—or rather a developed variation of "the same"—towards that system of conspiring energies which is the life of the whole.

The *unity* of my body—my bodily individuality—at any one moment is thus the co-operation of a conspiring Many:—a co-operation which never fails throughout my life (for failure would be physical death), but which is always changing in its character and in fulness, and in respect to the Many which co-operate. And the *identity* of my body through the different moments of its life is thus a *theme with variations*. But this metaphor must not be pressed. For the different stages and phases of my bodily development, the successive "co-operations" which are its "individuality" at each successive moment, are, *taken in their entirety*, the varied theme. No single one of them is "theme" *par excellence*, upon which the others succeed as "variations". Each is theme and variation in one; or the theme is and lives only in, and as, its variations.

We have, then, here a unity or individuality which is that of a system or cycle of functions: and an identity or permanent, which is the unrolling character, the law or the plan, of a development. The whole is one, not as a spatial continent, which 'embraces' a Many but leaves separate the Many embraced. The "whole" is a unitary cycle of activities: and its "parts" are the contributory activities, which are at once the differentiations of the whole and the complements of its fulness. And the identity is not

a permanent element in the change, not an atom or a monad or a point of sameness round which the differences flow. It is itself differentiated, itself changing and developing: the different stages and the successive states are *its* variations, and the phases of *its* being.

§ 6. How precarious our foothold is, should by this time be more than sufficiently plain. The metaphors, which we have employed, may, indeed, have made it clear that the unity and identity of the body are—like the unity and identity of anything which is not an unreal abstraction—"ideal"; *i.e.* that they are the proper objects of speculative thought and intelligent reflexion upon the perceived, and neither the mere conglomerates presented coincidently to sense, nor the fictitious 'ones' and 'permanents'—the atoms and the units—which an excessive faith in mathematics might incline us to accept as realities. But in other respects our metaphors have raised more questions than we can pretend to answer. A "theme with variations" implies a composer and executive musicians: the "co-operation of a conspiring Many" demands that the Many should be such as to conspire. A "character unrolling itself in a temporal development" must surely be the character of something or somebody: and a "plan" fulfilled in a development at once suggests a purpose, and a mind or a will which purposes.

Now we might perhaps plead for patience, on the ground that so far we have but considered *the body* of the embodied spirit. We might suggest that the spirit, which is embodied, may prove to be the owner of the "character" and the composer of the "theme": that *it* is the mind which "purposes," and whose "purposing" in part finds expression in the "plan" or "law" of the bodily development. The final discussion of some of the difficulties, and perhaps the final crash, would thus be postponed to a later stage of our inquiry. But one difficulty at least can not be postponed or evaded. We set out to investigate our unity and self-identity: and we began with the living body which we, as embodied spirits, involve. And what we have offered as the result of our inquiry is the systematic co-operation of an indefinite multiplicity of living bodies, the shifting population of cells. They are the musicians who execute the varied theme, the conspirators whose co-operation is the unity of the whole. Yet what are they, but simplified miniatures of the whole? Like the whole, each cell is one by unity of action and re-action: and identical, while it lives, by continuity in the variations of the "theme" which is its energy. Like the whole also, each cell is born, is nourished and grows; endures for a time, grows old, and

is reproduced in its descendants. Differences no doubt there are: but, in principle and in the main, the very characters, which perplexed us in the whole, have been transferred to the single cells without hesitation, as if *there* they were transparently obvious.

Yet if we examine the "single" cell, as before we examined the "single" human body, we shall again be confronted with the whirlpool of chemical process. The cell *appears* indeed to the microscope, as the body *appears* to the naked eye and the sense of touch, as a solid thing with fairly definite outlines, as a characteristic substance with a fairly distinguishable structure. But its substance, as chemistry will tell us, is certain complex and highly unstable chemical compounds, continually forming from the matter which flows in from the environment, continually breaking down and restoring to the environment the products of the disintegration, and continually re-forming from fresh incoming materials. There is about as much or as little persistent identity in the stuff of the cell, as in a vortex moving down a stream. And the cell's outlines and inner structure are in constant expansion and contraction, and change. The particles, which constitute them, do not persist numerically the same, but are continually yielding to new-comers which relieve them.

Once more then, in the "single" cell as in the "single" body, we have an "ideal" unity and an "ideal" identity, the same in principle and raising similar problems. But there is this serious difference. We cannot even plausibly imagine the Many which make the unity of the cell (the shifting succession of infinitesimal entities within its unity and identity) as endowed with the properties of the whole. We cannot, without stultifying ourselves, conceive them as a new and still simpler order of living bodies, as an army of still smaller conspirators and executive musicians. The cell was the *least* living body—the indivisible unit of life. And if we ask "What are these infinitesimal constituents of the single cell?", we can only conceal our ignorance and our defeat by semi-mathematical and semi-mythical language, by calling them, *e.g.*, "monads" or "entelechies" or "centres of attractive and repulsive forces".[1]

§ 7. One reason of our discomfiture is not hard to discover. We have once more confused an abstraction with a constituent of the concrete from which it was abstracted. We have once more succumbed to the fallacy that if A is more than B, A must be B together with certain additions.[2]

[1] *Cf.* above, § 3. [2] *Ibid.*

The unity and identity of the living body, as we have been conceiving it, are irrelevant to our problem. For though I am an *embodied spirit*, I am not a living body apart from spirit *together with* a spirituality apart from body. Hence I—the concrete embodied spirit—may well be one and self-identical, even though my body, conceived as the chemist and biologist might conceive it, is neither: and if, on the other hand, my living body, considered thus from without, be one and identical, yet *its* unity and identity are not constituents of *mine*.

We have not here to discuss the difficult question whether any living body, any animal or plant, or even any body at all, can *be* and be adequately conceived under the abstraction necessarily and rightly made by the natural sciences. It is certain at least, and it is sufficient for our present purpose, that no human being is, or contains within itself, a "living body" thus conceived. It would be absurd if we based an inquiry into the dramatic unity of Hamlet on a study of the minor characters, without taking any account of the hero. Yet our own procedure has been even more unreasonable. For the "Hamlet," whom we have neglected, is not one personage amongst others, but the only personage. He *is* the play; and what we have taken for "minor characters" must either be viewed as phases of his personality or disappear from the drama altogether.

There would seem in fact to be two positions, which it is not possible to combine in a single *conspectus*. For (1) we may "observe" our own bodies and our own physical processes within certain limits; and, again within certain limits, we may "observe" our own moods and habits of mind, the affections and vicissitudes of our conscious state. So, too, we may "observe" other bodies and their processes: and with some precariousness we may infer, from certain observable changes, moods and habits of mind, desires, volitions and thoughts, which we attribute to self-conscious beings other than ourselves. On the other hand (2) we may plant ourselves, as it were, within the intimacy of our own self-consciousness, and "enjoy"—but not "observe"—our own being-for-ourselves from within the incommunicable and impenetrable privacy of our self-feeling.

Now hitherto we have adopted the first position, and we have attempted by the way of "observation" to elucidate the unity and identity of our body. And this is substantially the position of the chemist, the biologist, and every student of nature. They study, by observation and inference, the vicissitudes and functions of the living thing: and they dis-

tinguish and describe, and attribute to "it," certain actions and re-actions, certain chemical processes, instincts and habitual modes of behaviour, perceptions, memories, desires and thoughts. But what they are thus describing, is the being of the living thing as it appears from without, and not as it is for the inward experience of the thing itself. And any unity and identity, which they may find in the facts thus studied, are relative to the observers, and have not necessarily anything to do with any unity and self-identity which the embodied spirit may "enjoy" in its being-for-itself.

§ 8. Within the big whirlpool of chemical process, the student of nature will observe many minor vortices. Each of these is a short-lived, ever-shifting bubble on the stream of change. Nevertheless, for his observation and inference, it is a "single" bubble, *this* bubble and not *that*. It will at least *appear* to the observer to possess a certain cohesion and continuity in its changes; and he will reckon it as "one thing" relatively self-contained and distinguished from "other things" in the external world. Although the stuff comprised within its shifting outlines is a concentrating and a dispersing, a streaming in and a streaming out, of the stuff of the big whirlpool, yet it will exhibit to the observer a fairly constant chemical character. Within each minor vortex, certain typical chemical compounds are always forming, and —even in disintegrating—re-forming. And this constancy of type in its stuff is reflected in the typical constancy of that cycle of activities by which the vortex responds to activities in its surrounding whirlpool. The cycle of activities, indeed, is always changing in response to the changing provocations of the environment. Yet, even in these changing adjustments, the observer will detect a certain typical constancy or continuity of character, *i.e.* a certain identity in the development of the vortex.

Now this cycle of activities—this cycle of observable changes responding to other observable changes—is only the *outer show*, which an inward and spiritual being presents, in so far as certain phases of its inwardness, of its being-for-self, are *externalised*:—*i.e.*, displayed to an observer as so many facts and events in space and time. "My body," as I myself and others may observe it, as a minor vortex with its typical stuff and its typical activities, is not "myself" nor any part of "myself" as I genuinely and veritably am. For nothing can enter into my veritable being, unless it be or become an appropriated "moment" of my own self-conscious experience, a phase in the enrichment of my "self," a turn or a re-turn in that spiritual movement, which is the maintenance, the expression and the development of my "personality".

§ 9. Let us then endeavour to start each from his own self-consciousness. "I"—let us suppose—am for myself a centre from which radiate, or a focus in which converge, certain rays of immediate consciousness. Of this immediacy, pleasure and pain are typical, but by no means the only, instances. For all my experiences—all my emotions, my desires and volitions, and all my perceptions and thoughts—whatever else may be said about them, are "immediately for me," are "appropriations" of my inward spirituality: and thus considered they are rays streaming from, and converging into, the centre or focus which is myself. "Centre" and "focus," of course, are metaphors, and must not be pressed. If "I" am a centre, my centrality is also its own circumference: and if I am a "focus," the "focus" is one with the rays which it focusses. But the metaphors may serve to convey that my inward unity has a certain range, which is also *eo ipso* a certain limit. "My" feeling extends into, and over, a sphere in which I am "at home," where "I" alone can thus feel, beyond which "I" in this sense am not. This province of my immediate spiritual appropriation, which is the territory of its confinement, includes—along, no doubt, with a great deal more—what the observer would call "my body". And thus "I," the concrete embodied spirit, am in my veritable being an incommunicable and impenetrable individual, an absolute one of feeling. This intimate immediacy, which is "myself," cannot indeed be observed—not even by myself—nor described. But it is "unquestionable fact," the primary self-evident *datum*, the one immediate and absolute certainty for each of us in this world of doubt and possible illusion. Here at last I have found "myself"—the self-identical individual, which excludes all others, and "enjoys" its own privacy of being throughout what people call "my life," and perhaps beyond.

My veritable being, if it is a "fact," is unlike all other facts, since it can neither be observed nor described—not even by myself—but only be "enjoyed". We have, indeed, named and described it, following in the footsteps of Descartes, as the immediate oneness of self-feeling: and we might have borrowed the language of Kant, and have spoken of the "'I think' which accompanies all my ideas," of the "Analytic Unity of Apperception," the "I am I" of Self-Consciousness. Any description is in the nature of the case inadequate. All that we can do is to appeal to each self-consciousness to plant itself within its own privacy, and there to live and enjoy the indescribable which is itself.

§ 10. We have reached a position, which we may be tempted to repudiate as absurd without more ado. The indescribable,

we might be content to say, is—whatever its merits—at least *quâ* indescribable nothing for philosophy. It is nothing at least for a philosophical inquiry, which sets out to elucidate and explain. Or we might ridicule this issue of our wild-goose chase, according to which (as it seems) the hunter must become the fowl in order to capture it. But the ridicule will lose its force, if we remember that in *our* goose-chase, admittedly and on any theory, hunter and hunted are *in some sense* one and the same from the start. And a position which has, or appears to have, the support of Descartes and perhaps of Kant, cannot safely be dismissed without a patient consideration.

My veritable being, then, is an immediate unity of feeling. As such—as an immediacy of self-enjoyment—it is the present, and *the present alone* is it. For how can the immediate unity of feeling enwrap within itself what is *no longer* or *not yet? Now*, indeed, in the very raising of this doubt, the experience, which is the doubting, is a self-positing and a self-guaranteeing flash of being, absolutely one with itself and for itself, absolutely impenetrable and incommunicable. And *now* again there is a second flash, a moment's impenetrable and incommunicable self-being or self-feeling, as self-positing and self-guaranteeing as the first. Am "I," then, in my veritable being, a series of moments, each absolutely one and individual, each absolutely impenetrable to all other moments? Or does the impenetrable individuality of my self-feeling cover and embrace within itself all the successive moments of the series which is my self-conscious life?

To accept the first alternative, would be to pulverise "myself" into an indefinite multiplicity of reciprocally exclusive and impenetrable selves. Each moment of my being would be as foreign to every other, as incommunicable and impenetrable a "self," as *I* could be to *you* or to any other person on the extremest theory of the absolute privacy and self-containedness of the human individual. Thus, the very immediacy and incommunicableness, which were to guarantee our own self-identical individuality, have turned against us, and dissolved "ourselves" into a heap and a stream of isolated impenetrable entities.

Nor can we help ourselves by appealing to Descartes. For Descartes had his own way of escape; but a way which makes short work of any "veritable being" of our own. On a first reading, indeed, we may think that Descartes is content to assume an Individual Mind, which the single flashes of self-consciousness presuppose as the Substance of which they are attributes or modal states. And we may

be inclined to put this aside, as an assumption which may perhaps clearly formulate the problem, but certainly does not solve it.

But, if we look more closely, we find the finite "thinking Substance" dissolving into the creative omnipotence of God. I, as a Mind, am indeed a Substance—but a *created* Substance; and "creation," in the theory of Descartes, has an unexpected depth of meaning. For God, who has created me, maintains me in being: and this maintenance is a re-creation from moment to moment—a re-creation, moreover, which achieves the union of the intrinsically isolated. "For the whole time of my life can be divided into innumerable parts: and these parts are such, that none of them taken singly depends in any way upon the rest. Hence the fact that I was a short time ago is no ground from which my present being may reasonably be inferred, unless some cause creates me, as it were afresh, for this very moment, *i.e.* conserves me." [1]

The second alternative is an extravagant fancy, a mere effort to find solid ground by plunging more deeply into the swamp. There is no immediate unity of self-feeling, no individual whole of intimate self-enjoyment, comprehending within itself my yesterday, my to-day, and my to-morrow: *à fortiori*, there is none which embraces my boyhood and my old age, my whole self-conscious life. Great stretches of my past, not to mention my future and many features even of my present, are clearly not "for me" as explicit constituents of my immediate sense of myself. And when I sleep—even if I always dream—and when I faint, there are lapses and breaks in my self-consciousness, which *on any interpretation* are fatal to this hypothesis. Moreover, if *per impossibile* this comprehensive individuality of immediate self-feeling were a fact, and were my veritable being, my temporal existence, at least as regards its successiveness, would be an illusion. It would be meaningless to ask whether I am the same person as the boy of 1879, since "I" should be a being whose existence, though limited in time, was inwardly "timeless"—*i.e.* without any distinction of past, present, and future within its total duration.

§ 11. No doubt it will be said that our two alternatives are not exhaustive. We shall be told that we have forgotten to reckon with Memory. For in memory I am immediately aware of what was, aware in the present of my own past. Thus Memory is the thread which binds the successive

[1] Descartes, *Med.* 3 (vii., pp. 48-49): *cf.* also, *Resp. Sec.*, Ax. 2 (vii., p. 165).

moments of my immediate self-consciousness into an enduring self.

What, then, is it that remembers? And what guarantee is there that the memories are genuine:—real moments of my past self, not creatures of my present imagination? If "I," the present immediate self-certainty, "remember" (and what other remembering subject can the theory admit?); and if *what is remembered*, as well as the *remembering*, is one for me with my own immediacy:—my past is fused in the intimate self-feeling which is my present. My "then" and my "now," these two impenetrables and incommunicables, have nevertheless flowed into one; and "I," in being now, am simultaneously, with the same immediate presence, what "I" was then. *Either*, then, my memory has tampered with the facts. I am not genuinely remembering, but imagining, and imagining falsely. *Or* the distinction between past and present in my duration is illusory. There seemed to be, but there never were, two impenetrables, two successive moments of my being. There is but one, the immediacy of a present, inclusive of differences, but without inner temporal succession.

Suppose, on the other hand, that I am immediately aware *that* I "remember" or *that* I fancy myself to be remembering, but that *what is remembered* is not included in my immediate self-consciousness. Suppose that "I" remain this impenetrable moment of immediacy, and *am not*, in remembering, *that which I remember*. Then the attachment of the past to my present is (for me) inferential and precarious: it is not invested with that "inwardness" which guarantees my immediate self-feeling. And if thus the past moments of my being belong to my veritable self, only so far as they are recalled and authenticated by my memory in the present, there will be little or nothing, beyond the moment's self-feeling, which can with any certainty be accepted as "mine" or "me". It is a commonplace that memory is untrustworthy and capricious. It deceives by omission, even when it does not deceive by invention. We have all been disconcerted by the attempt to recall even those activities and interests, in which (to judge by all the available evidence) "we" must have lived most intensely in the past. Some of them will come to us with so strange a face, that we shall with difficulty believe that there was a time when "we" were identified with them. Many of them will not come back to us at all. Which of us can "remember" the self, whose whole being was concentrated in the triumphant mastery of the arts of standing, walking, and talking? And though we are readily

convinced, as regards some of these "remembered" experiences, *that* once "we" lived intensely in them, we cannot now recall them in their detail, or renew the fulness of the life which once was theirs and ours. I cannot doubt *that* once "I" lived in intimate friendship with A, B and C, and *that* this affection and this intercourse, with all that they involved, constituted the substance of my self-conscious being. But A, B and C have long ceased to be anything but names to me—if indeed I can even recall their names: and all the detail of our intercourse has faded beyond recovery. Nor can I doubt that the greater part and the substance of my self-conscious being was once absorbed in such-and-such a study. Yet, if I now read the book, in which those former moments of my "self" obtained expression and relief, whole paragraphs and pages—and even in some measure the thought which they embody—are as alien to me as the work of a writer long since dead and buried.

§ 12. No resource is open to us, but a candid confession that we have taken an utterly wrong turning. We have looked for spirituality in the inwardness of self-feeling, and we have found what might have been expected. We have found the empty form of immediacy, the shadow which "accompanies" all self-conscious being, and is not the substance of any. For that form of absolute and impenetrable oneness, which seems to shut me in and to shut me out, is attributable equally and alike to every human consciousness, or rather to every moment of self-conscious experience. Such a unity is mine at every moment of my being, and yours at every moment of yours. And if at this moment "I" am—in all the substantial content of myself, in all my interests and purposes, in all my thoughts and emotions—other than "I" was at school, and other than I shall be ten years hence, still *then* and *now*, and at every *then* and every *now*, this trivial abstraction of unity, this indifferent form of immediacy, will "accompany" all my experiences, as it "accompanies" yours. All that I experience is "mine": and into this privacy nothing and no one can intrude, since it contains nothing. Or since this same privacy is yours and everyone's, it contains anything and everything, and intrusion is superfluous.

§ 13. If we continue to believe in our exclusive individuality and our self-sameness through life, we must recognise that these "unquestionable facts" have hitherto frustrated our attempts at elucidation. Our belief is a faith in a something we know not what: and what we seem to know is the reverse of what we profess to believe. At every turn of our investigation there emerged not our self-identity, but our self-dif-

ference ; not our exclusive individuality, but our communion with other beings ; not our impenetrable privacy, but the broad universality of the common environment. We tried to conceive our body as a solid thing, as an atom or a sum of atoms, the proprietor of its own impenetrable place. And we were forced to recognise a universe of actions and re-actions, a system which is the interplay and the balance of adjusted forces. We spoke of monadic centres of force, of single entelechies, as the units whose actions and re-actions co-operated to constitute the system. But even if this partitioning of the system is legitimate—even if these " monadic centres of force " are real individual entities, and not mere mathematical fictions—the supposed impenetrable unity of our body as a solid thing in space has vanished beyond recovery.

At the next stage, we tried to conceive our living body as a chemical and biological individual, or at least as a self-contained system of chemical or biological individuals. At once we found ourselves confronted with one great whirlpool of chemical change, with one great stream of processes which is the universal life. And such unity and persistence, as we could venture to ascribe to the living things, were relative and derivative. The living body is an individuation of the universal life, a minor vortex within the big whirlpool.

If, in the last stage of our investigation, we were not forced into a corresponding position, it was only because our inquiry here was incomplete. We have gone far enough to recognise that our spiritual individuality is certainly not an incommunicable and impenetrable privacy. We have not gone far enough to see our spiritual selves as the individuations of the universal spirit—as that or nothing. Yet it is not hard to sketch the further stages of our journey ; not hard to trace the path which would lead us to recognise (if we may adapt a phrase from Geulincx [1]) that we are but currents or " rivulets in the one great ocean of divinity ".

For there are plain and obvious facts, which hitherto we have not noticed. We share in common joys and sorrows, we can be inspired with one hope and one enthusiasm, and we can make our lives the realisation of the same ideals and the instruments for the expression of a common love. To " forget oneself " (as the phrase goes) in the reverence and

[1] Geulincx, *Annotata ad Metaphysicam* (Land's ed., ii., p. 269), " Nos sumus rivuli magni istius oceani divinitatis," etc. *Cf.* also the masterly development of the position, which I am feebly sketching, in Bosanquet's *Value and Destiny of the Individual* and *Principle of Individuality and Value*.

in the creation of beautiful things, is to become a great artist. The thinker must have "buried himself" in the pursuit of truth, and the prophet and the saint are those who have "lost themselves" in the worship and love of God. Pondering on the significance of such phrases and such experiences, we should begin to see in a new light the birth and development—the self-collecting, the self-winning, and the self-quickening—of the spiritual individuality of man. For we are no longer blinded to every other feature in our experience but one. We are no longer tempted to insist that, since it was *I not you* who discovered this truth, who painted this picture, who initiated this reform, who made this sacrifice, *here only* or *here primarily*—in this "I not you"—must lie my veritable self, my individuality as a spiritual being. Discarding this shadow, we should concentrate our attention on the substance. We should turn to the worlds of knowledge and art, of morality and religion—to the universal structures or systems in which the lineaments of spirituality are most plainly to be seen. And in these "embodiments" and "creations" of the spirit of truth and beauty and love, we should recognise that universal spiritual substance which is "self-individuated," "self-appropriated" and "self-manifest" as the personality of man.

IV.—A CRITICISM OF DR. MACKENZIE'S PHILOSOPHY OF ORDER.

By L. P. Saunders.

Before attempting to criticise Dr. Mackenzie, I should like to say that his writings are always a source of genuine pleasure. One feels that he is a very conscientious thinker, and one admires his unusual lucidity of expression. And it is really very important that Philosophers should make not merely a very strenuous effort to think clearly, but also to express their thoughts with the utmost simplicity and unambiguity possible. This is a characteristic that is far too uncommon. Often unintelligibility pases for profundity. It is, we all know, very difficult to be clear. But it is worth while to make the attempt, and not many apparently even do that. For it is really quite obvious that whether a man's ultimate object in writing is selfish or not, he cannot succeed in his aim unless his thoughts are understood, and their being understood depends almost entirely on the way in which he has expressed them.

I shall try to show that Dr. Mackenzie has really not contributed anything in the paper under discussion to the solution of Philosophic problems. He has mainly, I think, changed their names, and when he has not done this he has, I believe, confused issues. I shall discuss the various topics considered by Dr. Mackenzie in the order in which he himself has dealt with them. I begin with a quotation: "It has been my endeavour to exhibit certain fundamental conceptions as being involved even in the simplest facts of experience; and to show that reflexion on them leads us gradually to the recognition of a certain ideal order, which is at least the foundation of our moral aspirations, and may perhaps serve as a basis for an idealistic or spiritual interpretation of the Universe" (p. 216, No. 86).

As I understand him, his general position is that every thing is essentially, that is in its own nature, a member of an order or orders, with the exception perhaps of the order of orders, the Universe itself. He attempts to make out what he means by an order, and also what in particular

these orders are. And in his opinion a good many philosophic difficulties are removed by regarding things in the light of the orders in which they are contained. I pass now to detailed criticism.

In the first place it is not quite clear why he should affect to start with simple sense data. I advisedly say "affect to start" because he admits, indeed contends, that simple sense data, sense data in their simplicity, are not intuited at all—at least not at the stage of mental development when philosophic speculation becomes possible. It would have been necessary perhaps to start with pure sense data if the object in view had been to show that certain concepts apply to them. But this is not what Dr. Mackenzie set out to establish. His contention is that *every* thing is a member of an order or orders. Thus even if it were possible to show that this is true of simple sense data, this of itself would not establish the general proposition. My first criticism is, then, that there seems to be no particular reason why Dr. Mackenzie should have started with simple data of sense. Secondly, it must be pointed out that it seems plausible to urge that it is not possible to prove the general proposition in question by any appeal to sense experience. And I feel sure that Dr. Mackenzie would admit this.

Incidentally, I should like to say that I think it high time that psychologists and philosophers gave up the view that sense data, at a certian level of mental development, cannot be intuited in their simplicity. The position, I believe, involves a confusion; and the confusion seems to be due to the fact that simplicity in the sense of purity is not distinguished from simplicity in the sense of isolation. It may be perfectly correct to deny that a sense datum is never apprehended in isolation; but I am unable to attach any important meaning to the assertion that it is not possible to apprehend a sense quality in its purity. I am of course quite prepared to admit that numerically different but qualitatively similar stimulations of an identical sense organ give rise to sensations varying in either quality, or intensity, or extensity or protensity. But this, it almost seems unnecessary to point out, has nothing to do with the purity or non-purity of the apprehended sense datum.

The first two orders to which Dr. Mackenzie draws attention are *individuality* and *universality*. It is not clear that it is advantageous to speak of these as *orders*. Indeed, I think it can only lead to confusion. For it seems fair to maintain that *individuality* and *universality* are aspects of orders, and not at all orders themselves.

And this seems to be Dr. Mackenzie's own view. A sense datum, he says, is a *this*, but also a *this* that may recur again and again. Now, I think that from Dr. Mackenzie's general point of view this may be taken to mean that any one of an indefinite number of things may occupy some particular position in a given order without in any way altering its character.

But then I am not certain that I have followed Dr. Mackenzie's meaning. It is quite clear, of course, that in his opinion the concepts *individuality* and *universality* apply in some way to sense data. But where I am in doubt is here—is Dr. Mackenzie just pointing out, first, that in his language the concepts in question are *called* orders, and, in the second place, that these orders do apply in fact to sense data? Or is he concerned to show that by regarding sense data as members of *orders*, it is possible to give an intelligible *meaning* to the terms *individuality* and *universality?* It is quite evident, I suppose, that if the first alternative expresses his intention, that then he has not added anything so far to the solution of philosophic difficulties; and if the second expresses his aim, then it must be said that it is one he has not carried out. Taking what I regard Dr. Mackenzie's general position to be, I should be inclined to say that what he really means is, stated broadly, that some of an indefinite number of things may occupy particular positions in the case of some kinds of orders without in any way altering their intrinsic character (see p. 203). I say in the case of some *kinds* of orders, because it does not seem to be true of them all, not, for instance, in the case of the Universe. For it is specious to contend that the Universe without the numerically (!) particular colour order it contains would not be the same Universe. I say this seems plausible, as it is not certain that its force is peculiar. For it can be replied that the character of the Universe would be as such as little or as much affected by, say, the substitution of any one of its particular orders as any other order would be by the substitution of any one of its instances of qualities for other instances. The cases seem to be identical in this respect. There is, perhaps, a genuine difference, and one which may make all the difference. The substitution, in the case of the Universe, would be ideal, for there seems to be no sense in supposing that a fundamental character of the Universe could be replaced by *another* identical in kind. It might be contended that all other orders are really ideal, and that in consequence there cannot be in their case either any real substitution. However, I am not prepared to radically discuss a possible interpretation of Dr.

Mackenzie's position. What he really has to do is to make out quite clearly what he means by an order; then to show that that meaning really applies, and to what; and finally that it affords a solution of a good many philosophic difficulties. For myself, I can only say that I am unable to see that the difficulties that ordinarily are supposed to attach to the concepts *particularity* and *universality* have in any way been elucidated by Dr. Mackenzie. Of course it may be that these difficulties are wholly imaginary, and this is a view I am inclined to adopt. The meaning given to any term is in one sense entirely arbitrary. What is never arbitrary is its application. The meaning I attach to "particularity" is indefinable; not so that to which I should attach the term "universality". The meaning Dr. Mackenzie gives to *universality* I have not understood. On page 194, Dr. Mackenzie says, with reference to a particular colour, "It is apprehended not merely as *this* colour, but as a 'this' that may recur again and again. It has thus the aspect of *universality*. It is one of the many possible instances of redness. As soon as this is recognised . . . we have at least the germ of the apprehension of what is meant by one and many, and of the abiding in the midst of change." I think all these statements are not clear, and that those that are involve confusion. To begin with, Dr. Mackenzie seems to mean by *universality* the fact of a recurrence of a "this" of, say, a particular colour; and further on it seems to be identical with substantiality. It is clear, I think, that there is some confusion. There is also some ambiguity. For does Dr. Mackenzie mean that the *same* "this," the *same* colour, can recur, or simply that there *are* different "thises" of the *same* quality? He speaks of *instances* of *redness*, and so I suppose he means by universality the fact of there being different *thises* of the *same* kind. But what does this, in the end, mean, and how far do his *orders* help him? These are the difficulties, and these, so far as I can see, he has not touched. Mr. Russell is fond of telling us that you cannot get away from universality. It is plain, he would have us think, that you cannot in consistency fall back upon similarity as an explanation, for similarity is itself a universal. I think this is a remarkably weak argument. Does not Mr. Russell notice that there is nothing plain about the matter, one way or the other, until he has defined what he means by universality? The terms universality and similarity either are or are not synonyms. If they are, then certainly if there is similarity there is universality. If they are not, then similarity may or may not have the character of universality. But until the meaning of univer-

sality is made out, there is no means of answering the question. I do not know what Mr. Russell means by the word *universality;* and what he has before his mind when he is talking about universals, I am unable to make out. There seems to be something mysterious about them. I have no doubt at all that he is quite clear himself about the matter; my point is that further elucidation is desirable. In one respect, however, I persuade myself I have perhaps understood Mr. Russell: his universals are either essentially non-temporal or not essentially temporal. In either case, his views in this respect, I must regard as differing from Dr. Mackenzie's, for I understand that *time* is, for Dr. Mackenzie, one of the orders into which all things fall.

The other orders to which Dr. Mackenzie draws attention are, *quality*, *kind*, *intensity* or *degree*, *quantity*, *protensity*, *extensity*, *number*, *time*, and *space*. Dr. Mackenzie's treatment of these concepts is unsatisfactory. In the first place it is not clear what he is trying to make out. Are they all characteristics of *every* thing, or *some of all things* or *some of some things* or *all of some?* And what is their relation to each other? They are not all apparently equally fundamental. We are told, for instance, that *intensity* or *degree* is a *species* [1] of quantity; and *protensity* and *extensity* are said to be *varieties* [2] of continuous quantity, and so too *species* of quantity. Reflective analysis, says Dr. Mackenzie, discovers, in the case of *protensity* and *extensity*, the orders of *time* and *space*. This is not clear. Does Dr. Mackenzie mean that *protensity* is *time* or a character of time? And similarly with *extensity*. In either case, what is the relation of *space* and *time* to *quantity?* Are they too *varieties* or *species* of it? It is all too loose. Is there any difficulty in speaking of *species* or *kinds* of *quantity?* And also of *kinds* of difference?—Dr. Mackenzie speaks of *modes* of difference, and of them, he gives *kind*, *quality*, *quantity*, *intensity* or *degree*, etc. I do not wish to quibble, and I do desire to understand. In any case, I do not want to be misled. We all agree, I suppose, that in some sense all these concepts apply, philosophers and the rest of us. And to merely affirm this hardly seems worth while. As philosophers what we want to know is their precise *meaning*, if it can be given; their mutual relationships, so far again as these can be defined; and, finally, their range of application. Now I cannot see that Dr. Mackenzie has really helped us in these matters. It is possible, of course, that in his opinion the concepts in question and their relations are not definable. But if so, why not make the statement? All one gathers in

[1] P. 195. [2] P. 196.

this connexion from what Dr. Mackenzie does say is that they have *some* meaning, that they are *somehow* related, and that they *do* apply, and of the things to which they apply, some are simple data of sense. And all this I must regard as philosophically trivial. It is really not enough in Philosophy to maintain, without precision, that "even our simplest apprehension is at least implicitly the apprehension of an order".

Dr. Mackenzie's criticism of Kant is, that he was wrong in not recognising that the several modes of unity are inherent in the material they unify. Kant, according to Dr. Mackenzie, supposed the modes of unity to be really foreign to the material they build up. I should like to know if Dr. Mackenzie thinks that for Kant the modes of unity were foreign to *phenomena*, to *experience*. There is no doubt, I suppose, that they are completely foreign to noumena. But however this may be, I do not quite see on what grounds Dr. Mackenzie denies constructive activity to the understanding (p. 197). Apparently he maintains this because he holds that the modes of unity or orders are inherent in the unified or ordered. If this is his reason, its cogency, I must own, escapes me. But, of course, it all depends upon what is meant by construction as applied to the understanding. The problem of the passivity or activity of the mind in knowing offers a fine source for idle verbalisms and confusions. From the time of Kant the activity of the mind in knowing has never been seriously questioned. I do not know whether Dr. Mackenzie intends to deny it, for, as I have said, it is not clear what he means when he denies construction to the understanding. He may only mean to deny that the understanding constructs the principles it actually employs in knowledge; and not at all that it is active.

And certainly it may be difficult to understand what could be meant by the supposition that the mind *constructs* the concepts or categories it in some sense *uses*. Still I am not prepared to grant that it is an insurmountable difficulty. If this is the case, then it is, philosophically, an important fact. But until it is shown to be important, I should not admit that its truth is worth considering. Of course if the question "How are *a priori* synthetic judgements possible?" is really significant, and if its only answer is, They are possible if the mind itself, to use Dr. Mackenzie's word, *orders* the given of intuition, then clearly it would be important. But then it is quite certain, I think, that Kant never establishes this. It is agreed, in these days, that there are not two kinds of judgments, synthetic and analytic. And whether

this consideration of itself affects the significance of Kant's question, depends on its meaning. If what is meant is that all judgments are synthetic, then so far the problem stands; but if what is meant is that none are, then whether or not it is modified, depends again upon what is meant. If the meaning is that all judgments are analytic, then it would remain if the distinction between *a priori* and *a posteriori* analytic judgments could still be drawn. The problem would then be worded: "How are *a priori* judgments possible?" But the problem vanishes altogether if the distinction in question is fictitious, or if the distinction, so far as it applies at all, only applies to the matter to be judged about. And I put forward the view that judgment as such is neither *a priori* nor *a posteriori*. If this is so, then we have to translate Kant's question into "How is judgment possible?" And this question, I urge, has no answer. But even if it has, the answer given by Kant is wholly irrelevant.[1]

[1] As employed by him, the critical method may be characterised as a procedure which asks a question that seems to be intelligible, and forthwith proceeds to answer another. Consider, for instance, his answer to the question, "How are geometrical judgments possible?" They are possible if *space* is a *form* of intuition. Now I think this is a remarkable solution. Certainly if *space* is a *form* of intuition, then it may be granted that *every* thing given in intuition will appear under that form; so that whatever relations are inherent in *space*, these same relations no doubt will obtain in the case of the content of intuition. And from this it follows—I am giving what I think Kant's argument to be—that geometrical truths apply to the given of intuition. But this "solution" is obviously no answer to what apparently was the question. The question apparently was, "Under what conditions can the truth of a geometrical judgment be entertained?" and it is no answer to this question to say, "It can only be maintained if *space* is a *form* of intuition"; for it is quite obvious, I suppose, that whether space be or be not a form of intuition, in neither case is the truth of any particular geometrical judgment or geometrical judgments as such guaranteed. The question that Kant really does answer is this: "Under what conditions is it possible to maintain that what is given in intuition as such is spatial?" It is an answer to this to say we could maintain it if space is a form of intuition. But it is not the *only* answer possible. The most straightforward one is: "If everything given in intuition *is* spatial". In other words if space is a real determination. And it is plausible to maintain that this, in the end, is Kant's answer, on the ground that the one intelligible signification to be attached to the term a "*form* of intuition" requires the assertion, or involves the position, that what is given in intuition is spatial; that, further, the only novelty in Kant is that for him the real spatiality of the given of intuition is caused by the mind apprehending. Phenomena for Kant really are in *space*. Now what does all Kant's loud profundity come to? His original question apparently was: "How is it possible for the mind to take true geometrical judgments relevant to the content or given of intuition?" And his answer is—for I think

I now pass on to Dr. Mackenzie's treatment of relations. Here, again, I think Dr. Mackenzie deludes himself into supposing that his view of orders effects a removal of standing difficulties. In the first place his language is perhaps over loose—he says in one place (p. 199): "Relations, I would urge, simply *express* the position of particular objects in the order or orders to which they belong," and then further down: "When we are dealing with some one definite order, the relations that *determine* the position of a point within that order may be called intrinsic". Is to *determine* the position of a point the same as to *express* it? In neither case can the definition be regarded as satisfactory. The position in the quality order of a particular colour is simply the fact of its being some one definite colour; the several *positions* constituting that order *are* the several colours of different quality. To say, then, that a relation expresses the position of a particular object in the order to which it belongs, comes to saying, in the case of the quality order of colours, that each colour quality *is* a relation. This, I think, cannot be accepted. The statement, says Dr. Mackenzie, that A is

I have shown that it comes to this—"If the given is spatial". This, I suppose, no one would deny to be first class nonsense. But it is open for some to maintain that I have misinterpreted his question. His question was not: "How is it possible for the understandlng to make true geometrical judgments concerning the given of intuition?" but "What is implied in the admitted possibility of making true geometrical judgments?" Granting this to be his question all I have to say in this case is, that although his reply, namely, "That this possibility implies that space is a *form of intuition*," is some sort of an answer, yet that it is, epistemologically, an utterly trivial one. And why? His answer, I have shown, really, in the end, comes to no more than saying that the possibility of making true geometrical judgments about the given of intuition implies that the given of intuition is spatial. But this answer is trivial. You might just as well say that the possibility of making a true judgment to the effect that "X is red implies the fact of the reality of X's redness. Finally, I should like to say that although this is the only kind of question Kant, in this connexion, does in point of fact answer, yet that, at bottom, it was not the question he, in his own mind, really set out to solve. I do think, he was trying to find out how it was possible to make what he called synthetic judgments. But this question he did not answer. Nor is it surprising, for if what I have said is true, he was really asking himself this: "*How is it possible to make true judgments?*" And to this question, in one important sense, there is *no* answer at all. The only sort of answer is that in some cases our judgment springs directly from the apprehension of the "fact," and in others directly from the apprehension of other "judgments". I conclude, then, that the attempt to show that in order to judge truly the mind must have itself *created* or constructed the order apprehended is doomed, to failure. The point, however, as to the precise sense of mental activity in knowledge, remains. And it is a question which I invite Dr. Mackenzie to consider.

greater than B is a way of indicating the positions of A and B within the quantitative order. I must reject this account. The statement in question is *not* a way of indicating the respective positions of A and B.

The position of A *is* A, and of B *is* B. But to say that A *is* A and B *is* B, or, at least, that this entity is of quantity A, and that one of quantity B, is not to say that the one is *greater* than the other. For positions in the order of quantity *are* simply particular quantities ; thus to say of a particular entity that it occupies position A in the quantitative order can at best be taken to mean that its quantity is of a particular amount. Hence, if the statement A is greater than B expresses the positions of A and B, it will mean that A is a quantity of a particular amount, and that B is a quantity of a particular amount. But I must deny that this is the meaning. The truth is that what is expressed is the *relation* of the positions, and *not* the positions. For these reasons I am unable to agree with Dr. Mackenzie's definition of relations. Nor am I able to accept his account of what constitutes a relation extrinsic and intrinsic. I should have thought it clear that if relations simply express *positions* in orders that then all relations must be held to be intrinsic. But even if one ignores his definition of relations, it is still impossible, I think, to regard his account of the nature of extrinsic and intrinsic relations as satisfactory. It rests upon the position that each and every thing belongs *primarily* to some one order and *secondarily* to other orders. Thus red belongs *primarily* to the *colour* order and secondarily to, for example, the order of *time*. There may be something in this view, but it is not clear how much, and certainly Dr. Mackenzie treats it too easily. What precisely is meant by something being, say, *primarily* a colour of a particular quality, and *secondarily* (or not primarily) an entity existing at a particular *time* and place? It seems plausible to argue that it is as essential for a particular colour to exist at a particular time and place as that it should be of some definite quality and degree. And, to generalise, I should have thought that whatever order a thing belongs to, it belongs to it intrinsically.

The next topic discussed by Dr. Mackenzie is Order and Form. This section is, in my opinion, to some extent interesting, and to a large extent confusing. It is undertaken with the main purpose of elucidating what Dr. Mackenzie means by order. I cannot regard it as a success in this respect. I am prepared to admit that the fault is mine. But whatever be its cause I must own that in discussing Form Dr. Mackenzie has not elucidated for me what he

means by Order. I shall therefore briefly confine myself to some of his more general observations. One of his main contentions is, that " Empty forms are endless, but concrete orders have their definite boundaries " (p. 202). For instance number is infinite, but the number of things finite (p. 201). He also says (p. 201) that *space* is endless; and he explains this to mean that there is nothing in the nature of space as such that could impose a limit at any point. Dr. Mackenzie regards these statements as important. They may be; but it is not evident without further amplification. Anyway, when one notices that apparently Dr. Mackenzie accepts Aristotle's view that form has no reality apart from matter, his position does not seem to be consistent. For you cannot at once hold that space *is* boundless, and that number *is* infinite, and also that neither the one nor the other *is* real apart from a limited content. If forms are *not* real apart from their content, and if their content is limited, what on earth can be meant by saying that *in themselves* they are limitless, when *in themselves* they are not real, and so nothing. Has nonentity any *real* properties? It would seem as if Dr. Mackenzie were urging that it is limitless! Why does Dr. Mackenzie bother to talk about *empty* forms at all? The *real*, for him, is full, and part of its filling is its form. Why then does not he say straight away that empty forms are just nothing at all? At present they seem to be something like Mr. Russell's universals, utterly suspended from nowhere at no time and place.

What Dr. Mackenzie has to say about Concepts and Judgments in section 7 and 8 seems to me important and generally acceptable. I am not certain, but at least Dr. Mackenzie's language suggests, that in judging we simply refer something to an order, or to a position in an order. If this is his view, then, say when I judge that Simpkin's face is buried in the gutter, to what order do I refer? But I may have misunderstood.

I do not feel that Dr. Mackenzie's account of Truth is of any particular value. His observations about the relations of Belief and Truth are interesting and important. Many of us have never been able to concede that a judgment could be other than true or false, that, in other words, there was no sense in speaking of degrees of Truth. But I think most would be prepared to admit that in the case of Belief, there can be degrees of acceptance.

In judging, according to Dr. Mackenzie, we attempt or seek to state some of the relations involved in an order, not in a fictitious order, but in a real or objective one. In so far

as we do so, the judgment is true; and, I gather, in so far as we do not, the judgment is false. Whether or not this view is superficial, it is certainly narrow. It is narrow in its account of judgment, and in the limits it sets to possibly true judgments. I should maintain that judgment as such is not necessarily confined to an attempt to express the relations existing in *real* orders. When, for instance, I judge that the world would be better if there were not the order of pain, I am not, clearly, expressing a judgment about any *real* order. It would be beside the mark to say that the order of nature is real; for I am merely urging that the subject of a judgment is not necessarily a member of a *real* order. I do not know whether Dr. Mackenzie confines truth to *real* judgments, because he confines, apparently, judgment to the real (see p. 205), or whether the restriction in the one case is independent of the other. It is possible, for instance, that he might allow that not all judgments are about real orders, and yet confine all possibly true judgments to judgments about such orders. This view, I am inclined to think, springs from a confusion of Truth in the sense of a property[1] of judgments and truth in the sense of the *fact* judged about or expressed; when by a fact is meant either a real order, or a member of such an order, or a relation of such an order. If it be admitted that judgments can be made that are not in this sense about facts, then I think that all such are either true or false. For it is not evident that in this case there is any reference of anything to a real order, but rather *exclusion*. Do not negative judgments present a difficulty? Are they not possibly true? We seem, also, to be left with hypothetical judgments. With reference to some imaginary mechanical system, it is possible to calculate the relative disposition and velocity of the particles at a certain time. These judgments are not about facts. And yet surely they may be true. In conclusion I think Dr. Mackenzie too easily

[1] And in this connexion I should like to draw all attention to the view that truth is eternal. Now I am not certain that I understand what is meant by this. But if at least part of its meaning or implication is, that a judgment that is once true is *always* true, then I think reservations require to be drawn. And by this I do not mean to deny that all verbally identical judgments are equally true or false if any one of them is. Such a position is clearly untenable and, in any case, I am not aware that it has ever been put forward. Nor do I intend to deny that if a judgment X is true that all other judgments only differing from it numerically are also true. I admit that *if* judgments X and Y have the same meaning, that one cannot be true and the other false. What I do wish to question is the possibility of *repeating* all judgments—for instance, I do not think it possible to *repeat* judgments of the form, X is Y *now*.

finds his orders of use. He says: "It may easily be shown, by reference to that order (that is the numerical order), the judgment that $7 + 5 = 13$ is false" (p. 206). I venture to say it is not possible at all to show that this judgment is false by reference to anything, and certainly not to his numerical order.

Dr. Mackenzie's next topic is Order and Reasoning. Here again I do not feel certain that I have understood the points made. At first, Dr. Mackenzie seems to regard reasoning as the process of *testing* the truth of judgments by reference to the orders to which they are relevant (p. 206). But then the example he gives of a reasoning seems hardly to bear out such a view. The example is: $12 > 7$, $7 > 5$, $\therefore 12 > 5$. What has been tested here? It would not be correct to say that the judgment $12 > 5$ has been so tested. Had we *started* with it we might then, in some sense, have *tested* it by reference to the judgments constituting the premisses. But in the given example the judgment $12 > 5$ is the *conclusion* of a process; and it is a process that as such might have yielded a contrary result if we had started differently, if, say, the processes had been, $7 > 12$, $5 > 7$, the result would have been $5 > 12$. Now I do not wish to be misunderstood. I am *not* questioning the importance of what, apparently, is Dr. Mackenzie's view of the nature of reasoning; I am, however, questioning the appropriateness of his example. At this juncture I may be allowed to point out that in my opinion the prevalent custom of distinguishing between judgments that are *self-evident*, *ultimate*, or *non-deduced* and that are *derived* or *deduced* is apt to lead to confusions. The fundamental fact is judgment and it is a fact that is throughout identical. My contention is that every judgment, as such, is ultimate, and by that I mean that in *every* case it is the expression of a something immediately given in intuition. In other words, what I am anxious to insist upon is that every judgment is derived from some datum, and if it is asserted at all, it is asserted as an immediate apprehension of what is contained or given in a datum. I admit that it may be possible and desirable to distinguish two kinds of data—to divide, say, data into those that are "judgmental" and those that are "factual"—but I emphatically reject the position which regards some judgments as derived or deduced, and other as not deduced. Every judgment springs *directly* from the intuition in which the datum is given. The important point is that they are all equally and in the same sense *derived* or *ultimate*. And this position, I am inclined to think, brings out the fact of the independence of the truth

of any judgment upon that of any other. But to discuss this any further, would be to go too far beyond the object of this paper.

Dr. Mackenzie's brief treatment of cause I do not find illuminating. We are told that we do not ask *commonly* why red is red, but that we do ask why a lobster, when boiled, becomes red. I would go farther than this. I would say that no person in his senses *ever* asks why red is red. And the explanation I have to offer for the fact is simply that it is recognised to be a meaningless question. And in the end, as everybody knows, we do not ask *why* a lobster, on being boiled, changes its colour. Dr. Mackenzie also seems to recognise this, for he says, that such occurrences present themselves as "magical" (p. 207). But then he goes on to say that such happenings are not *really* casual; and so I gather that in the end they are not really "magical". The meaning he attaches to the word magical in this connexion can only be gathered by his contrasting it with self-evident occurrences. Apparently it is *self-evident* that red is red. But then when he seems to say that with fuller knowledge the magical character of occurrences like lobsters turning red disappears, does he intend to imply that such happenings also become self-evident? All this to me seems wrong. There is no sense in saying that the redness of redness is *self-evident*. I think Dr. Mackenzie deludes himself too easily into imagining that certain things are self-evident. When a change is seen to arise through a continuous movement, I understand Dr. Mackenzie to think that it then becomes or is self-evident. I can only reply that to me there is nothing self-evident about continuous movement. Indeed, I go farther, and I insist that *no* change is self-evident. The sooner we all recognise that it is *not* evident why any one thing gives rise to any other the better. This recognition, I am bound to think, would put a stop to a good deal of flatulent Idealism. Even if it is true that all changes are continuous, it still remains true that no change is self-evident. The fact, if it is one, that all causes are desires, does not make the causality of any effect self-evident. The desire on the part of a monkey to scratch its head may give rise to the fact, and from the point of view of the monkey, it is fortunate that it does; but it is not self-evident why it should.

Anyway, here again I completely fail to see how far Dr. Mackenzie's *orders* have helped him. To me, he seems to be playing fast and loose with them throughout. From the way he talks one imagines that the views he put forward are somehow involved in his *orders*, and that other topics are

considerably clarified by the light they shed. Almost anything is called an order, and all difficulties are swamped by an ambiguous word.

I do not understand precisely what Dr. Mackenzie means by Subjective orders, nor what really their relations are to Objective orders. I shall not try to give possible interpretations, for life is too short and this paper is already too long. I pass on, then, to Dr. Mackenzie's treatment of value. And here I do not know whether what is being offered is Psychology or Ethics, or both. In any case, it all seems weak and over loosely expressed. Dr. Mackenzie has something to say about pleasures and pains; about likes and dislikes; about conscious and unconscious *grounds* of these: about acts of choice; something is also said about a development in the reference of something, although it is not clear what, from the bodily organism to, in the end, a super-personal order; and the meaning of Good also, we are told, gradually unfolds itself, being identified first with what is liked, and finally to stand for what has the highest value in a super-personal order. Here I think he is moving along rather too quickly. A good many of the statements made seem to be false, and few of them connected. He speaks of a stage at which we are unable to assign any ground for our attitude of liking or disliking. Has Dr. Mackenzie reached the stage at which he can tell us why he likes or dislikes anything? Do these attitudes too become *self-evident?* Of course we may come to learn more precisely *what* it is that affects us in these ways And if this is what Dr. Mackenzie means then why does he not say so? But if he does intend to assert nothing more, then why assert so much? For it seems clearly to have nothing to do with an order of *value*—at least, not as ordinarily understood. I can suppose a baby's dislikes being first of all unreferred, and later on referred first, to its tongue, then, to its bottle, and then to the milk inside the bottle, and then to its nurse, and then to the milkman, and then to milkmen who dilute milk, and finally to all deceptive actions. But this is simply a history of dislikes; and at no stage in the "development" is there any increased approach in the self-evidence of the attitude. It is just as much inexplicable that a man should dislike bad eggs as that he should dislike bad philosophising. Further, our baby in finishing up with a dislike for deceptive actions does not necessarily lose its original dislike for diluted milk, and those who like sound thinking as a rule like fresh eggs. There is really no development of particular dislikes and likes. The growth that makes its appearance as a baby and

proceeds forthwith to develop into a man, may begin by taking delight in sucking its thumb, and subsequently, in an hour of heightened dignity, may stand transfixed in the presence of some liquid-eyed coquette. And yet there would be no sense in saying that the one attitude developed into the other. Again I cannot see what Dr. Mackenzie is driving at. So far as he talks psychology, I heartily disagree with him. But then I am quite willing to admit that I have quite failed to understand what he has to say.

He also seems to hold that Good has a meaning, and that it is one that develops (p. 210). One wonders if Dr. Mackenzie has even read Mr. Moore's *Principia Ethica*. Not that I think that Mr. Moore's is the last word in Ethics; still I sometimes gravely suspect that his is the first. And I am unable to see that Dr. Mackenzie has got beyond him. But again, I have to confess that I may not have understood. I can allow, however, that some of his statements are not false, and that a good many of them are not confusing.

The Ideal for Dr. Mackenzie is, I think, the actual Universe. The Universe is, for him, some kind of a whole, it is the order of orders, it is temporal, and each stage in its realisation is of absolute value (p. 212). To me this view is interesting, and if he could get there, I think it would be a fine philosophic achievement. And in justice to Dr. Mackenzie, it must be said that his paper is not regarded by him as even supplying the outline of a logical proof of it. Few are more keenly aware than he of the profound difficulty of such a task. Indeed, I think I do not misinterpret him when I say that in his opinion proof, in the strict sense, is, in such cases, unattainable. And this is an attitude that seems to be gaining ground. A good many of us can find much interest and some real encouragement in the views of cultured minds, entirely apart from any proofs they may think it worth while to offer. I shall have been misunderstood then, if it is thought that my aim has been to show that Dr. Mackenzie has not proved his final view. My object, whatever may have been its measure of success, has been merely to criticise certain statements made by Dr. Mackenzie, in some cases because I have thought them inaccurate and in others because they have seemed to me confused. And with this task I proceed. My final concern will be with the Order of Values and the Ideal. In the first place, I do not understand clearly the relation that Dr. Mackenzie holds to obtain between the order of values and the Ideal. The Ideal is, for him, the actual Universe, and the Universe is a changing whole. Now if the different stages in its "realisation," of its "unfolding,"

were of different value, you might then get an order of values, and it might be an ascending or descending one; but it also might be neither one nor the other. Such a position, however, whatever be its intrinsic cogency, is not that of Dr. Mackenzie. For him, the Universe, in all its stages, is perfect (p. 212). Before, however, going any farther, I think it advisable to consider the very conception itself of an order of value; for until we get clear on this point, it seems futile to attempt anything else. Now I suppose it is justifiable to distinguish *value* from *values*, that is to say, the character in question and the thing or things possessing it. If so, one must be careful not to confuse an order of *values* with an order of *value;* for statements about the one may or may not be true about the other. Thus it may be true that there is an order of value, but *no* order of values. This could be taken to mean either that there was nothing real of any kind of value or else that the real things that were valuable formed no order. Of course it is only too plain that such-like statements cannot be taken seriously until one has made out clearly what one intends to designate by the terms *order* and *value*. Fortunately for my purpose this is a task I need not fully undertake. For what I am anxious to insist upon is the untenability, in *any* important sense, of the conception of an order of *value*. And if it is true that the conception is devoid of any significance, there will be no necessity to distinguish between it and an *order of values*. I deny that there is any sense in the conception. But to make my contention good, I must state what it is that I understand the position to involve, and then show that it is invalid. The position I am referring to is common enough, indeed I believe it has been maintained, implicitly and explicitly, by perhaps every Philosopher. I refer to the view implied, for instance, in the judgments, "A is good, but B is *higher* good than A,"—it is implied in all judgments of the kind, "A is a higher or a lower good than B". The implied position is that there is a kind of goodness that is of the lowest kind, and another that is of the highest, and between these there are a number of other intermediate kinds. This position, I urge, is either nonsense or else not ethical. My point, in brief, is this,—if the predicates *higher* and *lower* apply to goodness, they are not ethical characteristics. and so from that point of view, are irrelevant. But I should *also* deny that they do apply. And the only way to show that this is the case, is to try to see what could be meant by the judgment, say, A is a *higher* good than B. What is the standard of comparison here? It is *not* goodness, for, *ex hypothesi*, both A and B are good.

And I suppose it would not be allowed that what is meant is that A is *lesser* good than B; but if it were then there would not be any theoretical difficulty—the standard in such a case would be some assigned *amount* or *quantity* of goodness. Now although this is not, I gather, what is intended to be asserted, yet I think it must be conceded that in the end nothing else can be meant. The case is different when it is affirmed that "A is of higher value than B," for this might be taken to mean that A is good and B is not, or that it more nearly approximates to a good thing than B. But no meaning, I repeat, other than quantitative,[1] can be attached to the assertion when both the things compared are good. The same considerations apply in the case of all assertions of the form "Good thing A is better (or worse) than good thing B". Of course I admit that meanings can be given to these expressions. All I have to say is that these possible meanings are not apparently what is intended. Thus you might mean that A is good intrinsically *and* extrinsically; B being simply, say, good intrinsically. I conclude, then, that no sense can be attached to the conception of an order of values, so long as such a conception involves the applicability of the terms *higher* and *lower*, *better* and *worse*. Value itself may fall within the order of *quantity*. But this too I think is doubtful.

The question we began with as to the relation of the Ideal and the order of values is now answered—they bear no relation. And this in the end is really Dr. Mackenzie's position, since according to him the Universe is perfect and so cannot, in any sense, be *progressing*; it is simply *changing*. The changing Universe is the Ideal. I do not mean to say that Dr. Mackenzie does not make a good many statements that are inconsistent and irrelevant so far as this position goes. I think he does. The whole of his discussion of the order of value is irrelevant. And what seems to me quite inconsistent is his belief in the reality of human progress; for I am unable to see that parts of a perfect whole can, in what I think is his sense of the word, progress. I am prepared to admit that the perfection of the Universe is unaffected by any imperfection of its parts—these may not only be imperfect, but even perhaps evil. The only way in which I could allow any meaning to the position that the Universe is perfect and that its parts are progressing is if it were possible to suppose

[1] I should myself be inclined to reject that view that goodness falls within the quantitive order. If this is true, and if it is also true that there are not *higher* and *lower* goods, *better* and *worse* ones, I need hardly say that the recognition of these facts would have a far-reaching effect upon Ethical speculation or theory.

that there are degrees of perfection. But it is not possible, I think, to entertain such a view. If Dr. Mackenzie would be content to regard the Universe as *good*, and not as *perfect*, then the case would be different. You would then have progress, progress in the direction of perfection. And this would mean change in the direction of the highest degree of goodness, when by highest degree is intended greatest amount. However, if goodness is not amenable to quantitative determination, if there are *not amounts* or *quantities* of it, if, in Dr. Mackenzie's language it does not fall within the order of quantity, then this position also would have to be rejected.

In conclusion, I shall consider Dr. Mackenzie's treatment of the validity of the Ideal. He says: "Now, if it be admitted that there is a real Universe—*i.e.*, if such a scepticism as that of Gorgias is set aside—it would certainly not be easy to form any conception of such a Universe except as a perfect whole, more or less of the kind that has already been characterised" (p. 213). And he adds: "This seems to me to be the only kind of proof of which such a hypothesis is susceptible, unless the place of the subsidiary orders could be definitely determined as falling within a larger whole" (p. 213). Now I wish first of all to say that it is one thing to prove that there is a Universe, and another to prove that the Universe is perfect. And this is so because a Universe is one thing and a *perfect* Universe another. There may be a Universe, and it may be perfect. But, as ordinarily understood, there is no inconsistency in entertaining the one belief, and rejecting the other. And yet (supposing Dr. Mackenzie's language adequately to express his thoughts) it does seem that Dr. Mackenzie does not sufficiently realise this. I do not mean that Dr. Mackenzie thinks he has *proved* the perfection of the Universe, in proving that there is some one comprehensive order; for I am fully aware, as I have already said, that he is quite conscious of the fact that he has not, in strictness, *proved* anything of the kind. What I am criticising is his apparently direct transition from his belief in an Order of Orders to a belief in its *perfection*. This, if it is a fact, I must regard as illegitimate. I reject, then, the contention that it is certainly not easy to form any conception of an Order of Orders except as a perfect whole. (To me it is just as easy or as hard to suppose that the supreme or all-comprehensive order should be Evil as that it should be Good. Indeed, to maintain the reverse, seems to me so remarkable, that I am inclined to disbelieve that it is really Dr. Mackenzie's position—I must suppose that he has expressed himself loosely.

In conclusion, Dr. Mackenzie examines the contention that it is impossible to hold that the Universe is perfect if it is admitted that it contains evil. Dr. Mackenzie does not admit the finality of this argument. He allows that there is evil, and he holds that this does not detract from the perfection of the Universe. The principle underlying his position is not unfamiliar,—it is, stated broadly, that the ethical character of a whole is unaffected by the ethical character of its parts. A whole may be good and some of its parts bad; and it may, similarly, be bad and some of its parts good. Accepting this, it seems plausible to contend that the goodness or badness of the Universe as a whole is not determinable, on the ground that it is not in its entirety cognisable. If this is valid, and it seems plausible, all that can be said is that it is not legitimate to deny that it is good because it undeniably contains evil; nor, conversely, is it valid to deny that it is evil because it contains some good. Accepting, then, the principle in question, it becomes clear that it is not possible to establish empirically the goodness or evil of the Universe. And I very gravely doubt the ability of 'metaphysics' to resolve the problem.

In this connexion I should like to draw attention to certain logical distinctions. One has to distinguish between good *on the whole* and good *as a whole*. The Universe may be good as a whole, but not on the whole, or, conversely, good on the whole and not as a whole. But in drawing the distinction it is very important not to misinterpret the expression "good on the whole". There can be no question of any real *subtraction* of evil from goodness, leaving a "*balance*" in favour of the latter. To suppose this is nonsense. By being good on the whole is not meant, then, that there is a real balance in favour of goodness. Nor can it be intended that numerically the *amount* of goodness is greater than the *amount* of evil. That there can be no real cancelling out, is, I suppose, quite obvious. That there can be no *numerical* subtractions becomes apparent when one realises that there is no possible common standard of measurement. Theoretically[1] you can have a unit of goodness, and also one of evil. But it is impossible to establish any relation between them. All that can be meant, it seem to me, is that the number of good *things* is greater than the number of bad things. And what I wish to insist upon is that it is much more important psychologically, that is from the standpoint of human beings, that the Universe should be good on the whole than good as

[1] Assuming, of course, that Goodness and Evil do fall within the *order* of quantity.

a whole. Of course, this would not be the case if the parts of a good whole are themselves good. But a good Universe that involves evil is compatible with any degree of pessimism. For it is clear, I suppose, that neither the fact, if it is one, of the Universe's goodness in this sense, nor the knowledge of the fact, could in any way affect human satisfaction. A Universe that includes essentially all the horror, misery and frightful disease that is experienced in human lives, may be good. But it would also be a brutal and damnable business, with the heart torn out of it, and bleeding everywhere, utterly alien and repulsive to all genuine human endeavour and inspiration. I reject the whole thing, and I am amazed that one, like Dr. Mackenzie, who looks so intently into life for the meaning of goodness, should have the intellectual effrontery to ignore so fully what is there given in utterance loud and unmistakable. When you tell me that love is good, I look at you; but when you tell me that this ugly ulcerated thing is good, I look past you. In the one case, I could believe that you were saying something; in the other I should feel no doubt that you had fooled me. I sometimes gravely entertain the conjecture that Ethics is utter jargon, foreign and destitude of all meaning. And if I needed any further encouragement, I could find it to repletion in these high-sounding extravagances.

But what, in the end, is all this talk about? I have assumed, hitherto, that to ask if the Universe is good is a significant question. And, in some sense, I hardly dare doubt that it is, seeing that thoughtful men so long have set themselves to answer it. Certainly to all appearances it is a straightforward question. And the answer, I should have thought, stands out clear enough. Is there, I ask, any goodness anywhere? If so, the Universe is good. And is there any evil? If so, it is also evil. But this, it may be said, is childish and irrelevant; for the question is whether the Universe is good *as such*. And with this counter-criticism, my head begins to buzz. For what, in the name of clearness, does it mean? I tell you, say, that the roses in the bowl before me are white. Are you going to ask me if they are white *as such?* I suppose not. Then why ask me if the Universe is good *as such?* Is it a different kind of question? Then what is its peculiarity? But to revert, with academic propriety, to the point, what I have to say is just this. If there is a Universe, then all qualities and relations are either its qualities and relations or they are not. If they are not, then either every quality or relation is possibly a character of the Universe or its Parts, but not both, or every quality

and relation is possibly a character of both, or only some qualities and relations are possible characters of both, the rest being qualities and relations of the one or the other, the Universe of its Parts, but not of both. Now for Dr. Mackenzie Good and Evil are possible predicates of both the Universe and its Parts; and he denies, by implication, that the goodness or evil of the Parts involves the Goodness or Evil of the Universe. If this were not his position there would be no significance in his attempt to show that the Universe is good, having already admitted the goodness of some of its parts. The question then arises whether the epistemological (I suppose this is the correct word) position implied in Dr. Mackenzie's Ethics is tenable. All I am going to do is to invite him critically to amplify and consider the implications of it. The case with Dr. McTaggart is different. I am not certain whether his denial that the Universe is good is put forward as an ultimate judgment or whether it is an inference. Still, whether the position is the expression of an ultimate judgment or not, at least this much is implied in either case, namely, that not all predicates are predicates of the Universe, and that a predicate of a Part is not necessarily a predicate of the whole of which it is a part—for he allows, we know that some things are good, but denies that the Universe is good. In consistency, then, he is not entitled to affirm that the Universe is evil, on the ground that some of its Parts are. His assertion, therefore, that the Universe is *not* good, must not be taken to mean that it is *evil*. In other words, with respect to Dr. McTaggart's position, all I wish to insist upon is this—that it must maintain both that the Universe is not good, and that it is not evil, that it is neither intrinsically good nor intrinsically evil.

In conclusion, Dr. Mackenzie suggests that Dr. McTaggart might paint for us the rose without the thorn. The good we know, Dr. Mackenzie urges, is essentially correlated with evil; and therefore, the argument is, no conception of a Perfect Universe that does not contain evil is really in the end intelligible. He says: "Can it be really held that we know of any other kind of goodness than that which we discover through our interaction with the world? It would seem that the most perfect ideals that we can form are only our world lit up. . . . Now, if the only good that we know in our actual experience is a good that stands over against evil, and this is realised through progress, it is hard to see how any one can give a coherent account of a non-progressive system in which anything equally good would be possible.

A world without progress would indeed deserve to be stigmatised as a 'block universe!' (pp. 214, 215). It seems to me that when Dr. Mackenzie says "that the most perfect ideals we can form are only our world lit up" he expresses most strongly in one beautiful sentence his main contention. But it also, I presume to think, most clearly shows its weakness; and it is, I further believe, inconsistent with what he had said elsewhere.

It brings out very clearly the view that the *ideal* must be regarded as some possible state of the *real*. And as a counter-criticism against the view that the ideal is intrinsically beyond and above the real, I regard it as a wholesome protest. None the less, I believe that both these positions are incorrect. The *ideal* is neither intrinsically some possible state of the real nor intrinsically beyond and above the real. The truth is, I think, that the *ideal* is neither intrinsically *realisable* nor *unrealisable*. It doesn't make any difference if you say its realisation is dependent upon the nature of the *real* or if you say it is dependent upon the nature of the *ideal*. I am using the term *ideal* as equivalent to *good*. The Ideal (with a capital I) is, however, some real state.

The Ideal is a legitimate concept if it is true either (i.) that goodness falls within the order of *quantity*, or (ii.) within the order of *number*. In the one case the Ideal would be the *greatest amount* of goodness possible, and in the other the greatest *number* of good things possible. Now on either of these views, the Ideal is at any time the Real at that time, for all things that are then *possible* things *are*, and so all possible good things must exist as well. And if this is what Dr. Mackenzie means, I am prepared to assent. But in any case it is not *all* he means, nor, indeed, am I certain that it is even part of his meaning. I really do not think he has considered the matter in this way at all. He, like practically all writers on ethics, has not really tried to examine clearly and fundamentally the meanings or relations of the terms *good*, *ideal*, *Ideal*, *ought*, *right*, etc., etc. Mr. Moore has done so more thoroughly than any other writer that I know of. But even he has left untouched very many radical questions. I have already briefly discussed the qualifications "*higher*" and "*better*". There are others, but I cannot consider them here.

With this brief aberration, I return to the question under discussion. The *Ideal*, as so far interpreted, is real. But there is yet another important meaning which can be given to the term. You may mean by the Ideal some particular state or condition of *ideal* or *good* things; and this state

might, in fact, be incompatible with Reality. In this sense, it is not necessarily understood either as the greatest amount of goodness possible or as the greatest possible number of good things. So defined the Ideal is certainly not, as such, the Real. And it may or may not be realisable. Now is it against some such interpretation of the Ideal that Dr. Mackenzie is contending? It is plausible to suppose that this is at least part of what he means when he says that the most perfect ideals we can form are our world lit up. The Ideal as last interpreted might require for its realisation not only lighting up all round, but also a good deal of burning up—wholesale eradication. And it is just this that Dr. Mackenzie is unwilling to allow. His argument seems to me to be as follows: The good that we know is essentially bound up with evil; and any other kind of good is necessarily inconceivable; therefore the Ideal must contain evil; and on this account all refutations of the Ideality of the Universe based upon the actuality of evil must be rejected as unsound. And for Dr. Mackenzie the Universe is the Ideal. Now whatever Dr. Mackenzie may mean by regarding the Universe as the Ideal, it is certain, of course, that nothing that he has adduced proves it to be so. He would himself, I believe, be the first to admit this. It would be interesting to know, however, precisely what he means when he maintains that the Universe is the Ideal[1] As I have already pointed out, in at least two plausible senses, the Universe is the Ideal. I also considered a third meaning, and as so interpretated the Universe, we saw, is not necessarily the Ideal. And, thus interpreted, each man's conception of the Ideal is ultimate. Now either Dr. Mackenzie so interprets the Ideal or he does not. If he does, then in maintaining that the Universe is the Ideal we must understand him to mean that in his opinion the Universe corresponds with his conception of the Ideal. If this is the case it seems justifiable to say that either his conception is very meagre or else he is not entitled to the assurance that there is any such coincidence. On the other hand, if Dr. Mackenzie does not so interpret the Ideal, but in one or other of the two other ways mentioned, then it seems fair to say that his statement that the Universe is the Ideal is of no value. But it is just possible that he would not define the Ideal in either of these ways. In any case, it is up to him to explain precisely what he does mean.

In conclusion, I should like to say that I do not think it

[1] As far as I am aware he does actually say that the Universe is the Ideal; he speaks of it as perfect. I have assumed that he would not distinguished the two. But, if he does, then I have merely to point out that all I have said would apply with equal force.

would be a fair criticism of Dr. Mackenzie's view to contend that it rests upon a confusion of what is good intrinsically and what is good extrinsically, what is good in itself and what is a cause of what is good in itself. I have no doubt at all that Dr. Mackenzie is as fully aware of this distinction as anybody else. His point, I think, is that the only kind of good we know anything about is *intrinsically* connected with evil—at least, most of it. Now it is no answer to such a question to say that that evil that is extrinsically good is being confused with what is intrinsically good. It would be a reply if it could be shown either (i.) that Dr. Mackenzie's contention is meaningless or (ii.) that, whether meaningless or not, it does not in fact apply. As I am not at all prepared to maintain that his contention is meaningless, I may be to allowed to invite him to more fully expound it.

V.—DISCUSSIONS.

ARISTOTLE'S THEORY OF TRAGIC EMOTION.

A GENERATION ago, according to Zeller,[1] the number of treatises on the notion of Catharsis in Aristotle's *Poetics* already amounted to seventy. Including the views put forward in commentaries on that work and also in the general expositions of Aristotle given by historians of Greek philosophy the interpretations must by this time run up to at least a hundred. I have not read more than a small fraction of the literature in question, and it is possible that the views here to be put forward and arrived at by independent investigation may have been anticipated in some one or more of them; but as there is no reference to any such views in Prof. Bywater's very learned and judicious summing-up of the whole subject I have good reason for thinking that they are original to myself.

In the much controverted passage to which I am referring, Aristotle, as translated by Prof. Bywater, defines Tragedy as containing "incidents arousing pity and fear wherewith to accomplish the catharsis of such emotions". Prof. Butcher translates *κάθαρσις* by "purgation". In my opinion "fear" is too weak a rendering for *φόβος*, and I shall henceforth employ "terror" instead.

Catharsis in the sense of purgation or a clearing out of undesirable matter occurs frequently in Aristotle's biological writings. Besides the passage quoted it is used once in the *Poetics*, but only in the sense of a religious purification (1455^{b} 15). Chapters vi. and vii. of the eighth Book of the *Politics* use the word in an æsthetic reference and on each occasion in a medical sense. The passages run as follows in Jowett's translation: (i.) "The flute is not an instrument which has a good moral effect; it is too exciting. The proper time for using it is when the performance aims not at instruction but at relief of the passions" (*κάθαρσιν μᾶλλον ἢ μάθησιν*, 1341^{b} 23). (ii.) Music should be studied with a view to . . . (1) education, (2) purification (the word 'purification' [*κάθαρσις*] we use at present without explanation, but when hereafter we speak of poetry, we will treat the subject with more precision); music may also serve (3) for intellectual enjoyment, for relaxation, and for recreation" (1341^{b} 37-41). (iii.) "Feelings such as pity and fear (*ὄβος*), or, again, enthusiasm, exist very strongly in some souls, and have more or less influence over all. Some persons fall into a religious frenzy, whom we see disenthralled by the use of

[1] *Ph. d. Gr.*, II., 2, p. 72, note 5 (3rd ed.).

mystic melodies, which bring healing and purification to the soul" (ἰατρείας τυχόντας καὶ καθάρσεως, 1342ª 3-11). (iv., continuing iii.) "Those who are influenced by pity or fear (φόβος) and every emotional nature have a like experience, others in their degree are stirred by something which specially affects them, and all are in a manner purified (πᾶσι γιγνεσθαί τινα κάθαρσιν) and their souls lightened and delighted" (*ib.*, 11-15).

Aristotle's promise to give a more precise explanation of what he means by Catharsis is understood by Jowett to refer to the *Poetics*, where, however, he observes that "the promise is really unfulfilled". Others have suggested that it was fulfilled in the lost second book of that treatise, and Bernays thought he had hit on an unmistakable reference to the missing explanation in a work known as *De Mysteriis* and formerly, but not now, attributed to the Neo-Platonist philosopher Iamblichus. According to this writer "human nature is subject to passions which are made more violent by complete suppression, but may safely and pleasurably be indulged by a moderate gratification. Thus by witnessing the representation of other people's passions in comedies and tragedies we restrain, moderate, and purge (ἀποκαθαίρομεν) our own".[1] The theory that pseudo-Iamblichus quoted these words from, or that they reproduce the sense of Aristotle's lost explanation of the Catharsis is ingenious and plausible. But it is open to serious objections. The Peripatetic origin of the passage seems indeed unquestionable. But it might be taken from a defence of the master's doctrine by Theophrastus, or some other distinguished disciple, against some early Stoic criticism. For the association of comedy with tragedy as a source of pathos is quite inconsistent with the doctrine of the *Poetics*, whereas it might well be suggested by the sentimental comedy of Menander. It may be said that the extension of Aristotle's idea to the New Comedy does not disprove the Aristotelian origin of the context. And that is true; but there are other considerations tending to make the existence of the supposed elucidation of Catharsis in the lost book of the *Poetics* highly problematic.

To begin with, the promise made in the *Politics* of a future disquisition on poetry may not, and in my opinion does not, relate to our *Poetics* at all, but rather to a determination of the function of dramatic performances and of poetry generally in the projected but never completed sequel of Aristotle's ideal State. Possibly the Stagirite's ultimate conviction that the drama has for its proper object not to instruct but to please made him despair of finding a place for it in popular education. Moreover the definition of tragedy in the sixth chapter of the *Poetics* is remarkable not only for its careful drawing as a whole but also for the exactness with which the meaning of the terms involved is explained where an explanation seems to be required. "By 'language embellished'

[1] Jacob Bernays, *Zwei Abhandlungen*, p. 40, Berlin, 1880.

I mean language into which rhythm, 'harmony,' and song enter. By 'the several kinds in separate parts,' I mean that some parts are rendered through the medium of verse alone, others again with the aid of song. . . . By 'Diction' I mean the mere metrical arrangement of the words: as for 'Song' it is a term whose sense every one understands" (1449^{b} 18 *sqq.*; Butcher's translation). Catharsis is silently omitted: it is neither named as something that all understand, nor is there a promise that it will be explained elsewhere.

In this difficulty I can only suggest that the explanation is to be sought for—and perhaps found—in the subsequent chapters, that Catharsis is in fact an effect of Character and Plot arranged with the object of eliminating pain and leaving pleasure as the end and the sole end of tragic representation.

Let me begin by observing that the homœopathic treatment of diseases—assuming pity and terror to be diseases—finds no countenance in any part of Aristotle's philosophy. At least I have found nothing of the kind, nor to my knowledge do his modern commentators quote any passage to that effect. For the passage already quoted from the *Politics* about the purifying effect of certain musical strains on the passions—among which pity and terror are included—neither states nor implies that the action is homœopathic. The passions are not first excited and then soothed. The right remedy, as we may gather, is at once to bring them to a mean. For in the same chapter Aristotle goes on to condemn the Platonic Socrates for recommending the Phrygian mode, on the ground that it is "exciting and emotional". "All men agree that the Dorian music is the gravest and manliest. And whereas we say that extremes should be avoided and the mean followed, and whereas the Dorian is a mean between the other harmonies [the Phrygian and the Lydian], it is evident that our youth should be taught the Dorian music" (1342^{b}, Jowett's translation). And Dr. W. L. Newman tells us in his note on this passage that hellebore, the classic example of a cathartic medicine, was credited with the power of removing the worst elements and leaving the best.[1]

Another important point is rightly to understand the way in which Aristotle supposes tragedy to excite the emotion of terror. With our way of thinking about dramatic representations we naturally conceive it as arising, so to speak, disinterestedly, like pity, from the sight of such experiences as the vision of Cassandra or the pursuit of Orestes by the Erinyes of Clytemnestra. Such a feeling has nothing selfish about it. In Aristotle's theory of tragic emotion, on the contrary, terror is purely selfish and arises from the apprehension of danger to ourselves.[2] And that is why the victim of tragic suffering must be—as Prof. Bywater translates the phrase—"an intermediate kind of personage, a man not pre-eminently

[1] *The Politics of Aristotle*, vol. iii., p. 564.

[2] Lessing, *Hamburgische Dramaturgie*, Sect. 74 ff.

virtuous or just "—fear being occasioned by the misfortune of one like ourselves (1453[a]). And the taint of this selfishness extends to pity. For, according to this philosopher, we only pity the victim of such a calamity. He defines the emotion as "a pain for apparent evil, destructive or painful, befalling a person who does not deserve it, when we might expect such evil to befall ourselves or some of our friends, and when, moreover, it seems near (*Rhetoric*, ii. 8, Jebb's translation). The friends, however, must not be too near, for in this case "we feel as if we ourselves were threatened". Now in Aristotle's theory the very object of tragic art is avowedly just this, to convert the actors into near friends for the purpose of inspiring us with terror; and their very superiority to the audience in social station is used for that purpose. Among other appropriate methods for exciting fear—where it is desirable to rouse that passion—orators are advised in the *Rhetoric* to show that greater people than his hearers have suffered—and also that persons like them are suffering . . . and this from persons at whose hands they did not think to suffer, and in a way, and at a time, which they did not expect" (*ib.*, chap. v., sect. 15). Here Aristotle, a bookish man, is evidently thinking much more of the tragedies that he had read than of the speeches that he had heard.

Nor is this all. Pity for others after generating terror for ourselves is driven out by its own offspring. As Aristotle himself puts it in the *Rhetoric*, "the dreadful is different from the piteous, and tends to drive out pity, and often serves to rouse its opposite" (*ib.*, chap. viii., sect. 12). As the Platonic Socrates says, we must follow the argument whithersoever it leads us—in this instance to the unexpected and unwelcome conclusion that the catharsis of tragic pity consists in its conversion into tragic terror. The purgation is not homœopathic but allopathic. The much discussed phrase, δι' ἐλέου καὶ φόβου περαίνουσα τὴν τῶν τοιούτων παθημάτων κάθαρσιν, does not mean that these passions are severally purified by being stimulated to excess, nor yet by being directed towards worthy objects—nothing could be more unworthy than selfish terror—but pity, at any rate, is to be got rid of by conversion into its opposite.

But here a new difficulty arises. So far the result of the analysis has been to leave us alone with terror—in all cases a most unpleasant companion, and, one would think, a particularly bad bargain to take in exchange for pity. It might be suggested, not without plausibility, that by perpetual action and reaction each of these opposing passions might serve to neutralise the other, or rather, in the language of Aristotelian philosophy, to bring it to a mean. Such an explanation would agree with Lessing's theory of the catharsis, at least to the extent of understanding it as a reduction of the characteristic tragic emotions to a mean point, while leaving us uncommitted to his idea that Aristotle attributes the same sort of moral value to the mean in tragedy that he does in his *Ethics*. Indeed one fails to see how Lessing or any one else could think better of moderate fear

than the extreme High Churchman in the story thought of a moderately chaste woman or of a moderately good egg. Pleasure, not edification, was what Aristotle considered the end of tragedy; and therefore the catharsis must be something that frees tragic emotions not of their excess but of their painful element. Now the fear or rather the terror induced by imagining that such calamities as those represented by Sophocles and Euripides may happen any day to ourselves is unmixedly painful, like the news of earthquake or cholera in a neighbouring country.

The idea of poetic justice as an Aristotelian postulate is now generally abandoned. From beginning to end of the *Poetics* such terms as τὸ δίκαιον and τὸ ἐπιεικές never occur in an ethical sense; while exceptionally virtuous or criminal characters are deliberately excluded from the ideal stage, so that there can be no question of an appropriate requital for the one or the other. Besides the tragic actors must not suffer for great crimes, as any exceptional wickedness would place them outside the sympathies of the spectator, thus making the evolution of pity and terror impossible. Their calamities must be the result of some fatal error (ἁμαρτία) such as the man in the theatre might happen to commit himself. One may observe parenthetically that to class the acts of Clytemnestra, Polyneices, Jason, and Medea as simple errors, comparable to the parricide of Œdipus—if our critic really meant to do so—would show a singular bluntness of moral sensibility, and, what in this connexion would be even worse, a singular obtuseness to the meaning of the tragedians themselves. The act of Creon in forbidding the burial of Polyneices is not an error; it is a great crime against the divine law and for that reason is justly visited with the divine vengeance. It is still further aggravated by the cruel punishment inflicted on Antigone; while Antigone herself suffers for what was not an error but an act of heroic virtue. There is not here, as Hegel vainly imagined, a tragic conflict of laws; the right, as Sophocles himself plainly shows, is all on one side.

What we are interested in, however, is not the ethics of Greek tragedy but the mechanism by which terror having been aroused is carried off. Aristotle is less explicit about this than about the machinery of character-drawing by which pity is converted into selfish terror, or rather he leaves it to be gathered from his rules for constructing a good plot. The purpose of a tragic plot is to explain the origin of that fatal error by which the piteous calamities of the hero were brought to pass. The analysis is wonderfully clever, and has made the reputation of the *Poetics* among modern critics. Indeed, Aristotle evidently became so interested in it himself that apparently the more essential problem of its relation to the catharsis got pushed out of sight. It seems to me that his original intention was to interpret the plot as a means of bringing home to the spectator how vain were his fears, seeing that such an extraordinary combination of circumstances as that which enmeshed,

say, an Œdipus in its folds would be most unlikely to rope in the average Athenian citizen. Moreover in each instance the "error" is an act of freewill involving a risk such as the average spectator would be most unlikely to run. In Antigone's place *he* would not resist the tyrant's decree. In the case of Philoctetes *he* would not entrust his bow and arrows to Neoptolemus. In fact while, according to Aristotle, the characters and the action are brought well within the self-knowledge and experience of the ordinary spectator—that his pity may be turned into terror—so the same characters and the same action must, to all appearances, be raised high above his experience in order that terror may be turned back into pity, or neutralised by it, or shown to be an unreasonable apprehension. On this last hypothesis the peculiar pleasure caused by tragic representations would be neither the "*suave mari magno*" of Lucretius, nor Gray's "snatching a fearful joy," nor the satisfaction of the "foolish (?) fat scullion" in *Tristram Shandy* at not being dead though others are, but the intellectual gratification resulting from the study of characters that are a skilful imitation of real life, and of incidents worked up into a complete and coherent whole. Throughout we find Aristotle's genius for systematisation, for naturalism, for logical classification and nomenclature displayed. And just as his cosmology puts the four elements in the centre or least honoured place of all, with their law of transformability, balance, moderation, and mutual restraint, so in his æsthetic theory also the elemental emotions are kept in strict subordination to the creative and limiting interest of a scientifically constructed plot.

The πρῶτον ψεῦδος of the theory lies in its false psychology. Pity does not arise from the sympathetic apprehension of another's danger or pain or loss. It is the arrested impulse to run to the assistance of those in danger, just as fear is the arrested impulse to run away from danger, rising, in the case of utter inability, to terror. It is perfectly true that, as Aristotle says, the death of those very similarly situated to ourselves causes (at least in some instances) not pity but terror. This, however, does not apply to the victims of tragic catastrophes on the stage; the mere consciousness of artistic illusion, reinforced in the case of Greek tragedy by remoteness in time and space, besides great disparity in social rank, would effectually obviate any such danger. And Aristotle's theory of the catharsis seems to betray a dim consciousness on his part that such was the case; only whereas in his idea pity passes into personal fear and is relieved by plot interest, in reality pity becomes admiration where the characters are heroic like Philoctetes and the second Œdipus, becomes love where their first weakness is atoned for by repentant self-devotion as in Ismene, Neoptolemus, and the Iphigeneia at Aulis of Euripides. As regards the last Aristotle has given the measure of his critical capacity by censuring the character for inconsis-

tency—a judgment to which, says Paley, "it is difficult to attribute much weight". It is of weight only as illustrating Aristotle's utter incompetence to deal with such matters. For, as Paley goes on to observe, "the part of Iphigenia throughout appears singularly natural. Her first impulse is to live; but when she clearly perceives how much depends on her voluntary death, and how Achilles, her champion, is compromised by his dangerous resolve to save her; lastly how the Greeks are bent on the expedition from motives of national honour, she yields herself up a willing victim" (*Euripides*, vol. iii., p. 448). It is perhaps fortunate for the reputation of the Stagirite that he has not favoured us with similar observations on the characters of Ismene and of Neoptolemus.

To sum up: the object of tragic art, according to Aristotle, is, first to excite pity by the representation of calamitous incidents, then by skilful character-drawing to replace pity by anxiety about our personal safety, and finally to relieve this by an appropriate adjustment of responsibilities and actions.

A. W. Benn.

IDEALISM AND THE REALITY OF TIME.

Prof. Reyburn's exceedingly able and temperate article in the October number of Mind demands, I think, a word of explanation from me. For while in the main I am in agreement with his position, yet he seems to me not to draw, with a perfectly firm hand, a distinction, the observance of which would justify my attitude somewhat further than he is disposed to admit.

The whole question, I hold, is governed by the way in which we understand the distinction between appearance and reality. I conceive appearance as partial reality; and I do not think that there can be any appearance which fails to qualify reality. Terms like "mere appearance," "illusory," "rejection of change," "denial of the objectivity of time," "not a qualification of reality itself," "succession not true," by which he indicates the view which he is criticising, do not apply to any view which I make my own, except in a popular sense as a denial of extreme propositions on the other side. The question, as I understand it, is not one of the "reality," but of the "ultimateness" of time.

While I feel sure that this has been the meaning of great philosophers who have criticised time, I do think that the clear insistence on it in recent speculation is an advance in detail, and ought to be considered as effectively modifying the controversial position. Time, along with pain and evil, I certainly have held throughout to be as real as the finite world. And in maintaining this position, with its corollaries from which I have not shrunk, I believe myself to have left enough room for all that can possibly be needed in the way of the reality of time.

The question to which I have addressed myself throughout is, as I understand, the question which Prof. Reyburn desires to insist on. But when the distinction which I have referred to is taken precisely into account, the treatment of it is necessarily modified and somewhat limited.

If time is the process of finite things, as Hegel says, it is surely plain that while possessing the same reality with them, it must incur serious modification when regarded with reference to ultimateness, that is, to the characters of the infinite universe, as a whole. It seems to me that the question must then be formulated thus. Since the process of finite things cannot conceivably be ultimate as a character of the infinite universe, what is it that this self-externality of the finite does contribute to the nature of the whole Plainly, like all appearance, it counts for something. But plainly,

again, it does not count for everything. If it did, extreme phenomenalism would be true, or rather there would be not even *a* world (not to speak of *the* universe) and no truth at all. Time is *prima facie* the god with the scythe, and inflicts uncompensated loss.

This question then, as concerning the two great shapes of externality, space and time, formed the framework of my argument, such as it was; *viz.*, the question: How do they qualify ultimate Reality? In answer to it I endeavoured to show how spatio-temporal "nature" subserved the particularisation of souls, thus expanding into what I ventured to call the representative system by which the universe knits itself together in the absolute and yet possesses a determinate content. And more especially I laboured the *prima facie* contradiction and fundamental unity of morality and religion. And this I did expressly because it appeared to me that the great stronghold of the claim for the ultimateness of time was the imagined impossibility of reconciling moral progress and the improvement of our world by our exertions, with the ultimate eternal reality of perfection.

Convinced that the reconciliation so pronounced impossible is typical for the central and fundamental unity which metaphysic has to vindicate, I endeavoured to exhibit it under the general formula of a self-resolving contradiction, charged with all the significance of the finite contents which at once appear to obstruct it, and furnish its material. Or, in more special language, I regarded it from the point of view of a satisfaction conditioned by a conation such as perpetually to be merged in it. And I attempted to make conceivable how in finite experience the element of conation should fall apart and appear under the form of self-externality, while the satisfaction should in various degrees appear as a contingent and isolated event.

Now I am very far from supposing that I have exhibited correctly even what I have tried to exhibit, or that there is not much more to be learned from the categories of externality, beyond what I have seen and tried to express. But it does seem to me that in order even to criticise even so poor an attempt as mine, it is necessary to confront the question which I have tried to confront. I find no help in examples of finite experience where externality appears as more or less essential, unless they are treated with reference not to reality but to ultimateness; unless, that is, the examples are analysed as graded indications of what the ultimate might be. We can certainly never light upon finiteness without externality. But we shall find, as I hold, externality transformed in various degrees upwards, from the very first stratum in which it becomes compatible with experience, and so becomes anything at all. Its incipient transformation, as I have pointed out (see Prof. Reyburn's citation, p. 502, "The first operation," etc.), is an integral part of its own being. And there is nothing to be surprised

at in the most *prima facie* appearances being all but reversed in ultimate reality.

We may consider, for instance, Prof. Reyburn's reference to the example of freedom in the self, which I treated with reference to Kant's discussion of predetermination. I cannot but think that here Prof. Reyburn is forcing his argument unduly. He urges, if I understand him right, that if the self is to be free from succession—from antecedent determination by circumstance—it must take succession into itself. To pronounce self-externality illusory, is in effect, he urges, to make it absolute, *i.e.*, I suppose, to leave it unmodified. Now I call this forcing the argument, because the question seems to me to be not whether you take externality into the self, but in what form you do it.

"We partly understand time and space, but we partly are in them; and so far as we are in them we do not understand them; they have us, not we them."[1] When then we say that the self differs from a natural object by carrying its past with it in an intelligent form, we are, I take it, in the true sense including, by transforming, externality. To include it *qua* externality would mean excluding it; it would mean our present self being to our past as one split-off element of consciousness to another.

I suggest that the same distinction is important in the examples from games and from art. No doubt they show the presence of externality; but their central lesson is surely that every form of experience has its own type of externality, in which the characteristics of the *prima facie* vanishing series are progressively modified. There is a growing self-containedness which reproduces at higher levels what is also no doubt prior to the experience of standardised time. We find this in the qualitative response to stimulus which is the so-called "timing," in games as in primitive life.[2] We find it also in the world of art. There is in music or the drama what may be called time; but it is not clock-time, though clock-time is possible alongside of and within it. It is the private and special tension of the unique individual work, and its relation to clock-time, which always involves an alien comparison and a distraction within experience, is an excellent finger-post to the place of "old Time the clock-setter, that bald sexton Time," within the ultimate whole. Duration has become tension; measurement, self-expansion; externality, an instrument of concentration. The better we know the work of art the more and not the less we enjoy its essence. Every part runs through the whole; the spirit of externality survives in the sense of conation; but the conation is charged throughout with the burden of its ending.

And this is why I only in part agree with Prof. Reyburn's comment on the view that past, present, and future, predicated of the same event X, are false as being contraries. I agree that the pro-

[1] Nettleship, *Biography of Green*, p. 116.
[2] *Cf. Knowledge and Reality*, p. 329.

positions in question are not for this reason false. At the level of narrative judgment, where the employment of tense indicates a personal or other arbitrary era,[1] they pass as bare facts which may be regarded without serious loss from any chosen centre. But yet by a higher standard they are undoubtedly false, not because as they stand they are contrary to one another, but because, on their merits, no one of them fulfils the conditions of truth. This Prof. Reyburn states in so many words when he calls them elliptical. A judgment stands or falls by the degree in which it is elliptical. In as far as it fails to state fully and precisely the condition under which P is attached to S in the system of reality, it is a false judgment. It follows that a judgment, in as far as it is true, cannot be regarded from varying arbitrary centres. It determines for itself the centre from which it must be regarded, and this is the whole system of reality, the claims of which on our experience are so admirably described by Prof. Reyburn in the opening pages of his article. If this were not so, his view, in which I am heartily at one with him, about the living unity of past, present and future (p. 498) could not possibly be true. For, as I understand him, there is in a full reality no such thing as a mere past, a mere present, or a mere future. Every event lives throughout the whole. But when we say this, we have left Time, the scythe-god, far behind.

Thus we gather two things at least. Even finite wholes, so far as individual, have what we may call their own qualitative time, and clock-time is absorbed in it, and only impinges on them in its own character incidentally and *ab extra*. And no events are purely past, present, or future. Αεί ποτε ζῇ ταῦτα. As Hegel says, in the place Prof. Reyburn refers to, the true present is eternity.

And now I can offer an explanation of the passage which Prof. Reyburn comments on as follows: "Dr. Bosanquet does not commit himself carelessly to the unreality of time, but his tone is against its objectivity. He urges that we must 'distinguish the conception of changing or progressing as a whole from the conception of uniting in a self-complete being characteristics which for us demand succession'. The implication is that 'characteristics which for us demands succession' can be brought together in reality and harmonised without using the conception of time."

In this comment I find the "all or none" character which I deprecate. The idea which attracted me was this. It appeared to me plain from such considerations as I have been discussing that there can be what I may call, not in the strictest sense, a qualitative experience, which is actually ministered to by what would be clock-time if it were attended to in that light. The experience then includes such lapses, but yet may not be itself an experience of succession in anything like the sense of the standardised vanishing series which we call time. Our experience of individual times,

[1] *Cf.* my *Logic*, i., 204.

and their relation to individual tensions, seemed to me to leave no doubt on this head. It follows that such an experience, without being, even in finite cases, thoroughly temporal, may and does occupy what otherwise regarded would be time. Therefore, we must remember, time on its side may occupy what as fully apprehended is not time. Thus the experience I suggest has nothing to do with simultaneity. It is an experience in which externality has put off all tendency to distraction; and succession, absorbed and focussed in the experience, furnishes the emphasis and particularity of the various moments—conation, as we said, being a typical one—which enter into and characterise its determinate content. It is this particularisation, this insistence on moments over against, because one with, each other, which I suggest to be the spirit of externality surviving in the whole.

Considerations of this kind correspond I suppose to Mr. Bradley's tentative observations in chapter xviii. of *Appearance and Reality* rather than to his negative criticism in chapter iv. The latter I take to be presupposed in the description of time which I borrowed from Hegel at starting, "the process of the finite". But we must remember that all reality must be self-contradictory, except the whole reality. And therefore the demonstration of the self-contradictoriness of time only impeaches its ultimateness, and not its objectivity in the ordinary sense.

As to the relation between value and purpose, all I meant was that a value unnoticed by any finite being would not be a purpose; and that a purpose, not justifiable in face of criticism—that is, on comparison with the whole of values—could not be a value.

With the former of the two alternatives with which Prof. Reyburn ends his paper, I find myself in agreement—that is, with the idea of a whole which includes change, but itself does not alter. And his criticism on this alternative again appears to me to confine us too much to aspects of time, as if we had simply to choose between two characters on a level. For me this does not put the question straight. It seems rather a question between one aspect of time, on the one hand, and the whole field of reality on the other.

The difficulty in the second alternative Prof. Reyburn has indicated. It is that of conceiving a changing whole which contains the grounds of its change within itself. I confess that this seems to me not merely a difficulty, but a contradiction. What changes, surely, is finite, and out of harmony with itself. It is not a true whole, and either we fall into pluralism, or seek a further whole that includes it.

A comment on a criticism should be short, and in attempting to make this paper so, I have by no means adequately expressed my very great satisfaction at having Prof. Reyburn even partly on my side, and my sense of the value of his method and point of view.

I must hope to deal with Mr. Carr's argument, which starts from a position so entirely different, on another occasion.

BERNARD BOSANQUET.

IS INVERSION A VALID INFERENCE? A REJOINDER.

I AM pleased to see that my little note on Euler's Circles [1] has stirred up two of your correspondents to contribute of their wisdom something towards the elucidation of inversion. I refer to Dr. Ross [2] and Dr. Rieber.[3]

I congratulate Dr. Ross on a delicacy of touch so fine that he is able to agree with me and blame me in the same breath. He thinks inversion is practically worthless, and so do I. But he seems to have a poor opinion of my way of getting at that result, and frankly I must say that I think even less of *his* way. He cites from Dr. Keynes two figures, *viz.* :—

Fig. 6 and Fig. 7

Figure 6 is illogical on the face of it. It makes S the restricted *suppositio* of P and $\bar{P}$, though it is wholly excluded from P. Now the *suppositio* is a *genus* and includes its species instead of being excluded from one of them. The same fault vitiates figure 7, though in that it is not quite so glaring because S is only in part excluded from P. Dr. Ross blames me for not refuting these figures in my first paper, but really that alleged sin of omission does not lie heavy on my conscience. In a short paper one is not bound to answer everything ever written. Besides some things die all the sooner for being left severely alone. Dr. Ross himself condemns them, though possibly he was not aware of it. He says that the *suppositio* implies a "common nature," and that all attempts at diagrammatic representation of restricted contradictories are "intricate and consequently useless". These figures attempt the very thing he considers "useless," and they violate his own dictum that the *suppositio* must have a common nature with the species under it. In fact the latter part of his paper refutes the first part. I am fortunate in my critics; they differ *toto coelo* each from the other, and one refutes himself.

[1] MIND, N.S., No. 83, p. 410 *seq.*

[2] "Inversion and the Diagrammatic Representation of Negative Terms," *ibid.*, No. 86, p. 254 *seq.*

[3] "Is Inversion a Valid Inference?" *ibid.*, p. 258 *seq.*

Dr. Ross thinks that the restricted contradictory vitiates obversion as well as inversion. In his example, 'No plants are vertebrates,' the obverse, 'All plants are invertebrates,' *is* clearly irrelevant. But his difficulty is one of his own making. The obverse is irrelevant because the predicate of his chosen obvertend is irrelevant. With a relevant predicate the difficulty vanishes. 'No plants are sentient' has a perfectly rational obverse, 'All plants are insentient'. The *suppositio* is now 'organism,' and 'All plants are insentient organisms' runs naturally. In Dr. Ross's example the *suppositio* is 'animal,' and 'All plants are invertebrate animals' will not pass muster. The same fault vitiates this example and the two figures above; a *suppositio* is introduced which lacks the 'common nature' insisted on by Dr. Ross himself. Obversion, based as it is on *balanced* changes in the copula and predicate term, is more secure than inversion based on *unbalanced* changes in the subject. I have already pointed this out,[1] and that argument stands unanswered. The same is true of my contention that inversion involves the fallacy of illicit process, the fallacy of shifting ground, and that it utterly severs the inferential tie between premiss and conclusion. If my critics really hope to score a point it may sometime occur to them that it would not be a bad idea to answer my arguments.

Dr. Ross specifies as an error on my part the reckoning of S̄ i P as an inverse of A because it cannot be read off from both

Fig. 1

and Fig. 2

Now the latter diagram represents the Hamiltonian U, and however much logicians may sneer at Hamilton's scheme of predicate quantity his distinction of U from A is sound. Hence it is a bald dialectic dodge to say that S̄ *i* P is not an inverse of A simply because it is not *also* an inverse of U. Dr. Ross's ruling that nothing is an inverse unless it can be concurrently read off from all possible diagrams, including even the creations of fancy, is purely arbitrary.

I am afraid Dr. Rieber has on his hands a large contract in attempting to divorce immediate inference from its characteristic features of simplicity and directness which are so conspicuous in its typical forms, obversion and conversion. He would make it include all implications from one proposition. From 'This figure is a circle' no end of conclusions follow, and they are far from being immediate inferences. Symbolists hold that a false proposition implies any proposition, hence *all* propositions are immediate inferences from a false proposition if both Dr. Rieber and the symbolists are right. Unfortunately inversion does not fall within his

[1] MIND, No. 83, p. 412, footnote.

definition, broad as it is. It always requires "other information" besides that supplied by the invertend, *e.g.* the existence of the terms and their contradictories.

Dr. Rieber's main point is the utility of inversion in spite of its hypothetical form. This he illustrates by the example: "If there are any (rubber bands) they will be in the second drawer from the top". This does not conform to the inversion type; it gives positive information, a thing of which inversion is sweetly innocent. It ought to run: 'If there are any they are *not* in the second drawer'. That fits in exactly with his notion that the peculiar and transcendently important function of inversion is to tell us where *not* to look in our search for truth. That sort of exclusion is worthless unless it is exhaustive, but inversion always leaves us with vast possibilities of error on our hands. Truth would forever elude us if the search for it were limited to the devious ways of inversion.

My alleged 'delusion' that formal logic is a guide to truth is a Rieberian myth. Of all the faults of formal logic one of the meanest is its shabby treatment of truth. It uses truth at a pinch, *e.g.* in the discussion of fallacies, but quite forgets to pay its wages. In other words it fails to give truth its due measure of honour and esteem. Instead of that it exalts formal validity above truth in pursuance of its fad of holding aloof from material logic.

Dr. Rieber's chosen line of defence, the *utility* of inversion, is the weakest he could have selected. Its *formal* defence is more plausible, and it is strange that he, a formalist, as any sponsor of inversion must be, has not discovered it. If no S is P, P must fall under S, for S and $\overline{S}$ divide the universe between them; hence some S is P. The answer to this is that the entities assumed in it are formal fictions not to be found in our actual world of concrete realities. We can *suppose* that S and $\overline{S}$ exactly divide the universe between them, but write 'sentient' and 'insentient' for S and $\overline{S}$ and we are at once confronted with a vague borderland of sensitive plants and nerveless animals. Temporal changes also must be reckoned with; what was S yesterday may be $\overline{S}$ to-day. The old, hard and fast lines vanish and with them vanishes even the specious appearance of formal validity of inversion.

L. E. HICKS.

TRUTH AND WORKING.

ALTHOUGH Dr. Schiller and Miss Stebbing (in MIND, Nos. 83, 84, and 85) are agreed in condemning the concise dictum, "All that works is true," there seems to be room for the question what the pragmatist doctrine is which runs a risk of being thus faultily expressed. If in the following remarks I am understating the pragmatists' case, or making concessions they cannot make, they are freely invited to say so.

Any short formula about the relation of 'truth' to 'working' is likely to confuse two fundamental tenets of pragmatism. These are: (1) that statements which are out of relation to practice are meaningless, and therefore neither true nor false; and (2) that statements with a meaning must have their 'truth' judged by verification as science conceives that process. These two different doctrines are allied through the fact that both complain of the influence of formal logic on the non-pragmatist philosophies, and both make some reference to 'practice' or 'working.'. Another important pragmatist tenet—that 'bias' or 'selection' is a necessary part of the recognition of truth—is wrongly affiliated to the conception of 'working'. The mistake has probably arisen out of the foolish caricature of this doctrine as intended to mean 'Whatever I *choose* to believe is true'. It is part of the pragmatist contention that 'satisfaction,' merely as such, is *not* the same as verification; and indeed that some forms of satisfaction are highly misleading—for example, that which is felt by the verbalist.

But let us look at the two doctrines with which we are here really concerned:—

(1) Among the chief motives—and historically the earliest—of the whole pragmatist movement is the desire to distinguish between statements which are 'undeniable' and statements which are 'true'. The reason for making this distinction is that a statement may be undeniable and yet meaningless—in the sense that it removes no ignorance, and corrects no error, and is therefore out of relation to practice. For example, all inapplicable axioms or principles—'A is A' may be taken as typical—are statements which, though undeniable, fall short of being 'true' because they fall short of being assertive. A statement can only be true (in the pragmatist sense) if it has meaning; that is to say, if it claims to conquer a *doubt*, and therefore takes a *risk of error*. Unless, that

is, a statement 'works' by answering a conceivable *question*, and so meeting a felt want, it cannot be called either true or false.

So far, then, the question of a criterion of truth has not arisen. We have been concerned only with a criterion of *meaning*, as a basis for 'truth-or-falsity'—an attempt to distinguish between meaningless statements and real assertions or judgments. The question what difference there is, in practice, between assent and denial, in regard to a given statement, is directed towards the discovery what *is* the assertion (if any) which the statement is meant to express. From the point of view of formal logic, and of any philosophy sufficiently infected with formal logic to ignore the difference between an assertion and a statement, this doctrine is a novelty. It was unsuspected, for instance, by Mr. Bradley when he wrote in (his *Principles of Logic*, p. 145) that for a 'proposition' to be unmeaning was itself an unmeaning possibility, and therefore none at all. His point was that a proposition (when it really is an *assertion*) cannot be unmeaning; and he put this forward as contradicting Mill's view that a proposition (*i.e.* a *statement*) can be unmeaning. We do not often find the confusion between assertion and statement so crudely and openly used as in this instance, but it is none the less effective when it is more disguised.

(2) 'Verification' on the other hand *is* set up as (in a sense) a criterion of truth; *i.e.* a means of sifting, more or less successfully, the value of assertions. So long as an assertion 'works'—or is verified in experience and does not lead to discoverable error—it is accepted as true rather than false. But the pragmatist, like the man of science, never supposes that 'Absolute Truth' can be got by this (or any) method, or even 'Truth for all time'. What we get is 'truth for a purpose,' or for a limited group of purposes. Next year's purposes may need a deeper inquiry, which shall correct this year's 'truth' by revealing some of its unexpected limitations, and so making its statement *ambiguous*. This again is novelty of doctrine only for those philosophers whose logic is of the older type. To the scientific experimenter it is a commonplace, because his whole business compels him to regard 'truths' as progressive and therefore as always inviting revision. In the effort to deal with the endless complexity of facts, he is constantly meeting with unexpected ambiguities of conception. But the philosopher who has been taught to think of ambiguity as a superficial and 'merely' verbal defect, avoidable by the careful use of a dictionary, is in a different case. To him the notion of truth as relative to purpose, and of ambiguity as arising out of an insufficient vision of the limits of a truth's value, are almost incomprehensible. At any rate he has not yet begun to show signs of understanding them when he tries to criticise the pragmatist doctrines either of meaning or of verification.

Just because the real difficulty of understanding the pragmatist contentions is due to the defects of the logic on which so much

'philosophy' is built, it is not to be expected that a short statement like the above can suddenly remove it. My hope is, rather, that it may help the sensible critics of pragmatism to see which of their objections are irrelevant. If there are others who cannot bear to make this discovery, that is their own affair, and their own misfortune. Even a much longer explanation would not help them.

ALFRED SIDGWICK.

THE ANALYSIS OF CATEGORICAL PROPOSITIONS.

I THINK I ought to restate my difficulty about Miss Jones's New Law of Thought, as a note upon it has appeared in MIND.

It is, in a word, that the analysis which is plausible for such a proposition as "My first penitent was a murderer" seems to be offered as adequate for "The three angles of every triangle are equal to two right angles". Granting for the sake of argument that the first proposition really means that the same individual possessed the two attributes specified, can we suppose that the second proposition means no more than that in the same individual triangles we find three angles, and also equality of the angles to two right angles? Miss Jones is willing, as I understand, to admit that there can be inseparability of intensions, but is not willing to admit that the proposition can primarily affirm it. It involves, she points out, identity of denotation. But this goes no way to show that identity of denotation is what in such a proposition we want to affirm. It is a question of the very nature and meaning of Science, which consists in affirming laws of connexions of attributes. I cited the 'Story from Thackeray" just to show how very far from a scientific connexion it is possible for an inference from individual identity to be.

As there is a verbal difference from Miss Jones's view in the passage she cites from Mr. Bradley, it may be worth while to point out another which simply and clearly puts her doctrine in its right place. "Every judgment makes a double affirmation, or a single affirmation which has two sides. It asserts a connexion of different attributes, with an indirect reference to an identical subject; or it directly asserts the identity of the subject, with an implication of the difference of its attributes. If you prefer to consider the identity of the subject . . . you read the judgment in extension. If again you emphasise the connexion of the differences, you take the judgment intensionally."[1] What is here given as the extensional rendering is I think precisely Miss Jones's account of the judgment. The difference is that the intensional rendering, which takes the judgment as a connexion of attributes, is treated as the necessary and fundamental interpretation. This appears from the whole argument. Here is the "restriction" under which I said that Miss Jones's view had been stated by previous writers. And my criticism is that the restriction is obviously sound.

[1] *Principles of Logic*, p. 161; *cf.* p. 93 and pp. 103-105.

The heading of this note, in which I follow Miss Jones, formally confines the problem to categorical propositions. If this were to be understood of such propositions only as have for their subject an individual or collection of individuals, Miss Jones's analysis would *prima facie* cover the ground. But I have offered this eirenicon in my Logic, and I understand that it is not accepted.

BERNARD BOSANQUET.

VI.—CRITICAL NOTICES.

Logic, or the Morphology of Knowledge. By Bernard Bosanquet, LL.D. Second Edition. Oxford: Clarendon Press. Two Vols. Pp. xxiv, 384; xi, 327. 21s. net.

"In preparing the second edition of this work," says Mr. Bosanquet, "I have endeavoured to put myself in the position of a reader of the first edition, aware of recent logical discussions, and interested to know how the book he is reading would respond to them." He has accordingly made few alterations in the text; but he has made considerable additions, including three new chapters at the end of volume ii., several important additions and appendices to other chapters, and numerous explanatory footnotes.

The most important portion of the new matter is that which occupies considerably more than a fourth part of the second volume. The three new chapters deal with (1) the author's theory of judgment in relation to Absolutism, (2) truth and coherence, and (3) the relation of mental states to judgment and to reality

(1) Mr. Bosanquet defends himself against the criticism of his theory of judgment on the ground that it ties us down *ab initio* to the metaphysical doctrine of Absolutism. "If every judgment in ultimate analysis qualifies an existing reality by an abstract universal, it is impossible to arrive at a plurality of individuals which can be ultimate subjects of predication, because no combination of abstract universals can confer the uniqueness which alone distinguishes an individual. There can therefore be but one ultimate Individual to which all predicates must belong; and this doctrine is Absolutism." But it is argued that real pluralities of terms must be recognised in logic and mathematics, and it is further inferred that there must be a plurality of existing substances, which can only be subjects and never predicates, and which as parts are no less individually real than the whole, while the whole is no less individually real than the parts. Of these substances the self is the principal example. The critics whose position is thus summarised are Mr. Bertrand Russell, Prof. Stout and Prof. Taylor. Against this position Mr. Bosanquet contends that "no finite real is wholly independent and self-existent," and thus no finite real is in the full sense a substance. "No finite individual is self-contained, self-consistent, or self-dependent; all finite individuals differ in their degrees of these characteristics." But all finite individuals do contribute to the one reality. "The appeal to our experience of ourselves is of all things the most fatal to a doctrine of self-existent substances." What our experience reveals

to us is "a seeking on the part of the self for its own reality, which carries it into something beyond". Again, if it is urged that, "to predicate an individual subject of the Absolute has the self-contradictory result that the Absolute is included, so to speak, in a class of one, *i.e.* is identified with the individual," Mr. Bosanquet replies that the argument presupposes the "class" theory of the judgment and that "no true relation of membership within a concrete universal can be expressed in a class predication, or in any judgmens to which such a predication is equivalent". Further, he holdthat an individual which is not wholly self-complete and self, contained can be predicated of the whole of which it is a memberif the conditions under which it becomes so are specified. "Organs are predicates of the organism as a whole, subject to the conditions which have differentiated them." On the other hand "it is the doctrine of a sole self-existent subject which has first given complete freedom to the judgment" by enabling us to reject the S P form and allowing the judgment to be formulated as "any complex of terms and relations, any arrangement of a plurality of apparent subjects". But against this doctrine it is still contended that it cuts away *ab initio* all possibility of distinguishing subordinate individuals as individuals. "For it restricts us to universal predicates, and universal predicates can never, by any complication of them, distinguish and define individual subjects. This can be done, and can only be done, by contact with immediate experience." That is to say, Mr. Bosanquet replies, that individuality rests upon designation. But "individuality cannot possibly rest upon designation". "What does so rest is not individuality but particularism, the very sign of negation and imperfection." "*Our* individuals, so far as imperfect, do depend on designation for the recognition of their uniqueness. And this is a conclusive proof that they are not and cannot be genuine individuals." "Designation excludes self-containedness and self-completion, and that uniqueness which comes of filling a definite place in an ordered whole." "A true individual cannot be designated, but it alone, and nothing else, can be defined."

It is evident that in this discussion we have, in a modern form, the old antinomy between the universal and the particular. It is admitted that the real is the individual. But Mr. Bosanquet's critics contend that his theory drowns the individual in the universal, and he replies that their individuals are not really individuals, but in the end are bare particulars, without a shred of universality One cannot adequately discuss in a review the whole question at issue. I am more in agreement with Mr. Bosanquet than with his critics; but, on the ground which has been chosen (the theory of judgment), it seems to me that the controversy must remain a drawn battle. It is an antinomy which can be solved only by examining its presuppositions. Mr. Bosanquet is criticised on the ground that his theory of judgment commits us to

Absolutism—to the abstract universal. He virtually replies that his critics' theory of the judgment (whether the class theory or that of unpredicable subjects) commits us to the abstract particularism of indefinables or of monads. The result is the antinomy of Spinoza and Leibniz, in a new form, but on very much the same basis, *viz.* the theory of the judgment. Spinoza presupposes one universal subject, into which all predicates may be absorbed: Leibniz presupposes an infinity of self-complete subjects, "designated" metaphysical points, each of which contains all its own predicates. And undoubtedly every theory of the judgment has metaphysical implications and consequences. The question I should like to raise is whether, on the basis of a theory of judgment, we can satisfactorily overcome the antinomy of the universal and the particular. Do we not make unnecessary difficulties for ourselves by treating judgment as the central problem of logic? The whole history of logic shows that, if we hold to the traditional S P form of the judgment, we are involved in the contradictions of the abstract universal and the abstract particular. Analysis drives us to the futile attempts (*a*) to get a given individual (which, in the end, is an abstract particular) out of abstract universals or (*b*) to produce abstract universals out of a given individual or particular (an unpredicable subject) or (*c*) to reduce judgment to a collocation, co-existence or sequence, of particulars. Mr. Bosanquet's critics seem to me to be involved in one or other of these difficulties. Mr. Bosanquet, on the other hand, rightly rejects the S P form as "a mere superstition". He holds, however, that "subject and predicate are essential elements in the judgment" (vol. i., p. 78). But there is only one ultimate subject, "Reality," and in every judgment this ultimate subject is qualified by an ideal content The explicit subject indicates "where and how Reality accepts the qualification which we attach to it"; but "the whole complex, grammatical S P and all, is predicated of the ultimate Reality". Does this reference of an ideal content or a significant idea to Reality enable us to overcome the difficulties which I have suggested? In spite of the breadth and freedom which it gives to the theory of the judgment, it seems to me to remain unsatisfactory. The judgment, as judgment, cannot stand the strain. At least the insistence on predication tortures Mr. Bosanquet's main doctrine in such a way as to give some plausibility to the attacks of his critics. It is, I think, the root of all the difficulties involved in such phrases as "contact with reality," "transmutation and rearrangement" of the nature of an imperfect subject so as "to bring it into harmony with the nature of the whole," finite subjects "having in various degrees their reality outside them," "restoring the unity which the real has lost by our making its diversity explicit," etc. Mr. Bosanquet's account of the judgment gets rid of the particular S's and P's; but it still leaves us with a content predicated of Reality, as the one ultimate S. It thus leaves unsolved the real

difficulty of the judgment, *viz.* the suggestion of a subject (whether individual, universal, or particular) which has abstract universals (attributes or contents) attached to it or which is defined by means of abstract universals. Reality may or may not "accept" certain predicates, and "contact with reality" in the 'this' suggests a breach between reality and its predicates which can be overcome only by a transcendance of judgment, involving a transmutation of all that is finite. Of course Mr. Bosanquet does not mean that there is any such separation between Reality and its predicates: the whole body of his doctrine is directly opposed to any such supposition. But predication inevitably lends itself to such a separation, and the difficulty is not overcome by predicating an ideal content, however fully systematic, of one ultimate subject. Why should we speak of predicating anything of Reality? It seems very artificial, and it confronts us at once with the contradictions of the Substance-Attribute Category. Mr. Bosanquet says (vol. ii., p. 271) that "in analysing the thought-world logic holds itself to be analysing the structure of reality, the detailed and articulated responses by which the living body of experience exhibits its endeavour to approximate as a system of ideas to a non-contradictory whole". On such a view thought must be more than predication. Its ideal must be complete selfdetermination, which is the characteristic of a self-contained, self-existent system. But predication inevitably suggests external determination. If you try to find self-determination within the limits of the judgment, you postulate unpredicable subjects, containing all their predicates within themselves, and your judgment becomes purely analytic, *i.e.* it destroys itself. The judgment, in short, cannot stand by itself. Its meaning is not self-contained. It is always an element in an inference, a fragment of thought, just as the concept is a fragment of judgment. All thought is reasoning or inference, an unfolding of the "structure of Reality". Accordingly it seems to me that reasoning or inference, rather than judgment, should be the basis of logical doctrine. A reasoning does not predicate anything of anything else, and consequently (unless you approach reasoning from the judgment point of view and treat it as a group of judgments) it does not suggest abstract universals related to particulars. It presents us with a system, in which there is no appearance of separating universals from particulars—a system which is held together necessarily by its own self-determination. Its self-determination, of course, may be incomplete. Ultimately there is only one completely self-determining system. Probably Mr. Bosanquet would, in the main, accept this view. But, as a result, I think, of approaching it from the side of the judgment, he leaves the impression that complete self-determination is the determining of the parts by the whole, whereas surely a completely self-determining system must be self-determining through and through, the parts as well as the whole. Indeed in such a system the distinction

of whole and parts disappears. It is not merely self-complete or self-conditioned: it is also self-conditioning.

(2) In the discussion of truth and coherence (book ii., chap. ix.) Mr. Bosanquet deals with recent criticisms of the coherence theory of truth and defends himself against the suggestion that his own view ultimately implies the correspondence theory. He insists on immanence as "the absolute condition of a theory of truth". "Truth is its own criterion. That is to say, it can only be tested by more of itself. Your completest system at the moment cannot be further tested. You can only test it further when you are in a position to make it more complete." He then proceeds to discuss "the peculiar logical movement of to-day" in so far as it affects the coherence and correspondence theories. The movement has two complementary branches, (*a*) Genetic Logic, based on the demand that truth shall be a mere adaptation to vital needs, and (*b*) Realist Logic, which requires that truth shall lie in a relation to simple given fact. "On both sides we have the demand for immediacy; here the immediacy of satisfaction, there the immediacy of apprehension." Genetic Logic has "in principle adopted and popularised the coherence theory of truth". But it restricts coherence to the coherence of adaptation with external action, it tends to assume that the correspondence theory prevails in the older philosophy, and it is apt to stigmatise the more complete coherence theory as a mere formal consistency. It is right in vindicating for logic the sphere of life and practice, in emphasising adaptation and applying the general idea of natural selection to the development of thought, and in vindicating for the individual mind a share in the self-maintenance of Reality; but it fails through limiting "practice to the sphere of external action, adaptation to the history of *de facto* success apart from the principle of its determination, and our living concern with Reality to effecting in it ultimate change, in a time which is ultimately real".

The realism of Mr. Russell and Mr. Moore is the antithesis of the Genetic Logic. Its core is "the rejection of what have been called 'internal' relations, and the assertion of mere external relations" between simple terms. Mr. Bosanquet would express 'internal relations' by some such term as 'relevant relations,' *i.e.* "relations which are connected with the properties of their terms. So that any alteration of relations involves an alteration of properties, and *vice versa*." He holds that "in a large proportion of cases the relevancy of the relations to the properties of the related terms involves a community of kind," *e.g.* in the cases of moral, spatial, and temporal relations, where there is "a common positive element on which both property and relation depend". Indeed, in all cases the meaning of terms is relative to their grouping. "Relations are true of their terms. They express their positions in complexes, which positions elicit their behaviour, their self-maintenance in the world of things." "If the relations make

no difference to the terms, it follows that things do not re-act or behave with reference to the complexes to which they belong." Relations, again, "cannot be reduced to qualities, nor qualities to relations. Relations are just the way in which discursive thought represents the unity of terms which it cannot make adjectives of one another." On Mr. Russell's view there is no such thing as identity in difference. He offers us "a Universe of tiny Absolutes "But if any of these Absolutes imply any term beyond themselves their absolutism breaks down. And we have tried to show that in all relations this is the case." Mr. Bosanquet admits that identity in difference must go 'in the end,' *i.e.* in the great Absolute, "in any experience for which objects are self-contained, and cease to transcend themselves". In other words, we can have identity in difference only when we have terms which imply something beyond themselves; but "the Real is self-complete and self-contained". Here again I find it difficult to accept Mr. Bosanquet's position. It is quite clear that you cannot have identity in difference where you have self-contained terms and relations between them. But the Real is self-contained and self-complete, in the sense that it cannot have anything beyond it; there is nothing else to which it can stand in relation. It is so, because it is a perfectly self-determining system; and as such a system it is surely the very perfection of identity in difference. The difficulty seems to me to arise from the insistence on the judgment, to which I have already referred. "Judgment and inference begin together" (vol. i., p. 75); but does not judgment begin as a fragment of inference, not necessarily explicit? We begin with the whole, and the whole does not lose its unity as we advance, but develops its identity in difference. If the Real loses its unity in discursive thought, and requires that unity to be "restored," we seem to be left in the end with a Real in which all diversity is not merely "absorbed" but wiped out, a Real of pure, abstract identity.

After an acute discussion of the "illusion of simple fact," and a development of the view that the full facts are comprehensive systems, Mr. Bosanquet deals with Mr. Joachim's contention that "since all human discursive knowledge remains thought 'about' an Other, any and every theory of the nature of truth must itself be 'about' truth as its Other; *i.e.* the coherence-notion of truth on its own admission can never rise above the level of knowledge which at the best attains to the 'truth' of correspondence. Assuming that the coherence-notion of truth is sound, no theory of truth as coherence can itself be completely true." Mr. Bosanquet explains that "judgment professes to express the nature of the real so far as it can be uttered in a system of predicates and relations. It does not propose or suggest, so far as I can see, that the real is another system of predicates and relations, which that constituted by judgment pretends to reproduce or to resemble. Therefore its failure is one and decisive, simply consisting in the fact that it is

not, like the higher experience which we suppose to be the sum and substance of all Reality, solid and immediate as well as perfectly individual and non-contradictory." "Perfect coherence" is not an attribute or essential of perfect truth. "The perfection of truth is not within its own character, but must lie in a reality different in kind." "No experience short of perfect reality is altogether itself. It is in that sense, that even the truest truth, such as the coherence theory of truth, is not quite true; that is to say its fullest completeness lies in something, a more perfect form of experience, which is beyond itself." But "truth stands on its own ground, as a fulfilment under its own conditions of the nature of reality; and it can be tested as truth under these conditions and under no others, and therefore, as we have seen, by itself only and by nothing else in the universe". The claim of coherence to be truth rests, not on correspondence, but on "the working of reality within truth".

The doctrine that "thought is essentially discursive and relational" seems to me to be the root of the whole difficulty. Mr. Joachim contends that this drives us to a conception of perfect thought, or complete coherence, which must in the end mean a correspondence of truth with reality. Mr. Bosanquet suggests that "complete coherence" is not an intelligible expression. "Coherence is the substitute, possible only in a system of predicates and relations, for the immediate unity, transcending mediateness, which we are compelled to ascribe to a perfect Reality." And he maintains that the fullest completeness of truth "lies in something, a more perfect form of experience, which is "beyond itself" and which is "not truth in the form of truth". In other words, thought as essentially discursive is inadequate to reality. Reality is "operative" in it; but *it* is not reality. If thought is essentially discursive and relational, mediate to the exclusion of immediacy, this result follows, whether we agree with Mr. Joachim or Mr. Bosanquet. And, if Mr. Joachim's argument involves the rejection of an immanent standard of truth, can we save this standard if we accept Mr. Bosanquet's view? If complete coherence is unintelligible, truth must remain incompletely coherent. Can an incompletely coherent system be its own standard? If the fullest completeness of truth lies in a more perfect form of experience, which is beyond itself, must not the standard of truth lie in the more perfect experience? Again is thought purely mediate? Mr. Bosanquet says that coherence is a substitute for "the immediate unity, transcending mediateness," of a perfect Reality. Does "transcending" mean excluding or including? The mere including of what is purely mediate in an immediate whole is to me unintelligible, and an immediate unity, excluding all mediateness, is an empty unity. Mere mediateness runs into infinite regress and thus confesses itself abstract and incomplete. But there is self-determination in inference and also in judgment, regarded in the light of inference, and so far as there is self-determination there is immediacy. And if thought is self-

determining, it is not merely mediate, discursive and relational. It has the characteristics of "the more perfect experience".

Mr. Bosanquet himself makes a significant reservation upon the doctrine that thought is essentially discursive and rational. "The worlds we severally live in, with the spatial world of each of us, have been fundamentally transformed and reconstructed by thought working in and on perception and general experience." They are "all different and peculiar, and yet solid and individual in an appreciable degree". "We have created for ourselves by thought originally discursive, a new immediacy, a new 'given,' a new basis of feeling and object-matter of simple apprehension." The "inseparable contents" of these apparently solid worlds or objects "are not, as a rule, taken as predicates. They are taken as belongings of the quasi-subjects or rather quasi-substantive objects, although we can separate any of these contents and make them into predicates." "Thought has made these quasi-individuals, and it can unmake them." And he concludes that "thought which can thus deposit an apparent solid individual, is not so far removed from the nature of the fuller experience as an exclusive study of the discursive S P judgment tends to make us suppose". Does not this suggest a re-consideration of the nature of discursive thought?

(3) I can only briefly refer to the discussion, in chapter x., of the relation of mental states to judgment and to reality. Mr. Bosanquet contends that (*a*) "no mental states in a human consciousness are mere mental states, but all contain matter that has been and may be significant"; and (*b*) "the difference between mental states and ideas with a meaning lies in the 'use' of the former". "Immediacy," *i.e.*, psychical existence, or being as a mental state, "is a character that may be assumed by any mental complex or object, however logically articulate or external and independent of mind it may appear under certain conditions. And every complex or object has its immediate mental aspect." "Immediacy is a phase and not a stratum of our experience." Again, "a content is 'used' when, in judgment, it qualifies a real world; when its nature, carrying us beyond its mental existence, makes us attend, not to the latter, but to a quasi-independent subject, ultimately a condition under which that nature is true of reality". On this basis Mr. Bosanquet considers the Realism of Mr. Pritchard and the Pragmatist position, which is its antithesis. Both of these "necessarily place the mind outside the reality; in the former case, that the mind may not dictate to the real; in the latter, that the real may not dictate to the mind". The central fallacy of Realism is that "to find the reality independent of experience you must have recourse to a reality apart from experience". "It is a plain fallacy to say that because the difference between *a*, *b*, and *c* is not due to *x*, therefore *a*, *b*, and *c* can be what they are if *x* is withdrawn." And on the Pragmatist view, "in knowledge we create, and create

not only truth but reality. We make it, that is, *out of* nothing, and by means of nothing." These contentions Mr. Bosanquet develops and justifies with great force.

There is much other valuable new matter in this edition of Mr. Bosanquet's book, with which I cannot deal in this review. But I would draw special attention to the section "on a defective formulation of the inductive principle" (vol. ii., p. 174), which contains an interesting discussion of Bergson, to the appendix to chapter viii (vol. i., p. 355), which deals with the arguments of Mr. G. R. T. Ross and Mr. Keynes regarding the exclusiveness of disjunction, to the discussion of Mr. Bertrand Russell's theory of infinity (vol. i., p. 163), and of his Symbolic Logic (vol. ii., p. 40), and to the account of the limits of Genetic Logic (vol. ii., p. 238).

As the greatness of Mr. Bosanquet's work has long ago been generally recognised, it would be impertinent in a reviewer to commend it. But those of us who have learned much from it are grateful to him for enhancing its value by showing how its principles apply to recent discussions.

R. Latta.

The Consciousness of the Universal and the Individual ; a Contribution to the Phenomenology of the Thought Processes. By Francis Aveling, Ph.D., D.Sc., D.D. Pp. vii, 255.

This book is a valuable contribution to the psychology of thought. The main worth of the book lies in the interesting account of a series of very thorough psychological experiments carried out by the author in University College, London. We may therefore pass over without further comment the first part of the book, *viz.* the "Historical Introduction," in which Dr. Aveling deals with the problem of the Universal as it has appeared in the writings of various philosophers from the time of Plato down to the psychologists of the present day. As the author himself plainly states, these early sections only profess to give a preliminary sketch in order to provide a point of view for the research. Possibly a more suitable introduction would have been afforded if the author had substituted for this historical survey a more complete discussion of the modern psychology of thought and of the work of other experimentalists in this field.

The plan of the experiments was ingenious yet admirably simple, and Dr. Aveling has shown great skill in his analysis and manipulation of a large mass of introspective material. Ten nonsense words were made, and to each nonsense word was assigned a series of five small pictures, "all sufficiently alike to be easily designated by some common name". Thus the word "*Ferod*" went with five pictures of little boys running and jumping, etc.

The first task for the subject was to "learn" these new words and develop a meaning for them by seeing them exposed at the same time as one or other of their corresponding pictures. This portion of the experiment was called the "Learning Period". In the second part of the experiments these newly-found concepts were made to function as universals or particulars in logical judgments. Thus the words "All Ferods are . . . " were presented to the subject and he was required to complete the judgment.

Dr. Aveling was fortunate in securing some skilled introspectionists as his subjects (including Professors Carveth Read and Spearman), and there is no doubt that the very considerable mass of evidence which he has brought forward will have to be considered in any further review of the psychology of thought. And this not merely because of the novelty of some of Dr. Aveling's findings, but because his work provides the first experimental testimony, collected in this country, to the validity of some of the most important results of Dr. Watt and others of the Wurzburg school. I say *experimental* testimony, for many of these points concerning the psychology of thought emphasised by recent experimentalists had already been expounded by Prof. Stout in his discussion of imageless thought and the meaning of words, in the *Analytic Psychology*.

Dr. Aveling's research very strongly supports the view that imageless thought is possible, and indeed of frequent occurrence, and that in the concept we have a unique thought-element. Dr. Aveling goes even farther and suggests that this thought-element is independent of sensory elements, and (at least when fully developed) apparently independent even of language, though of course constantly used in interpreting language.

In the course of the process of learning the nonsense words and their meanings, as given by the pictures, the subject's progress in learning was occasionally tested by the presentation of the nonsense word alone. Four stages were here distinguishable in the development of meaning. In the early stage it was found that the nonsense word only called up an image of some one picture, without any meaning in a more general sense. In the second stage meaning had developed and was discriminated from the revived image. In the third stage the meaning consciously precedes the revived image, and then there gradually appears a "fusion of concept and nonsense word" and this is the process by which the latter acquires meaning. In the fourth stage the word "carries its meaning," *i.e.* is so closely associated with its meaning that discrimination may in some cases be difficult. At this stage frequently there is no visual imagery discoverable.

One turns with interest to see what Dr. Aveling has to say upon the difficult question of the exact significance of *meaning*. At an early stage the meaning of a nonsense word is spoken of as an "ideopresentation of one picture," or a "concept which may apply

indifferently to any one of the pictures the place of which it has taken". In this latter case "an association has been formed between an abstract idea and the nonsense word," but Dr. Aveling does not further elucidate here the nature of this abstract idea. Elsewhere we read the somewhat vague statement, "the meaning was an imageless presence of 'object' to consciousness".

It is made clear, however, that meaning does not consist of imagery or of other words, and in this Dr. Aveling is in agreement with what other psychologists both theoretical and experimental have previously asserted. To interpret the meaning of a word as consisting merely of other words is merely to shift the problem a stage farther back. Similarly an image must be an image of something, and as such has its own meaning.

Apparently we have the author's summing up as to the nature of conceptual meaning on page 167: "Psychologically considered, the concept is not further analysable. Our observers have discriminated in it no parts or elements, as they were able to do with regard to the sensorial part of the complex. No matter what its logical implications may be, we have so far, from the phenomenological point of view, no data from our experiments which will allow us to analyse it. It *may* be complex. We are not in a position to bring evidence that it is, or is not." The author thus at least definitely takes up the position that the concept cannot be analysed into, or identified with sensory elements. It is a distinct and further question whether this conceptual element ever does or can exist and function in the mind in the entire absence of, or in entire independence of all sensory elements. This latter point I shall refer to presently.

The psychologist of the Sensationalist school questions the existence of such a thought-element which cannot be analysed into images. But it would appear to be of doubtful value for the Sensationalist, merely because he cannot discover such a thought-element in his own mental processes, to suggest that lack of introspective acuteness may be the reason why the upholder of pure thought does not also detect the imaginal constituents of his apparent thought-element. It is surely equally possible that it is the Sensationalist who fails to catch the more subtle thought-element —which Dr. Aveling would also call the more unstable element. For vague and variable as the imagery accompanying thought often is, as Dr. Aveling repeatedly emphasises, yet he himself maintains that it is relatively more stable than the concept. Indeed it is sometimes used to maintain more definitely before the mind a vague unstable concept. Thus "when close attention is necessary to anything, an image is reproduced, or a percept is sought for and held in consciousness". Dr. Aveling indeed seems to me to grant even too much in favour of the image and its powers —except in certain types of thought. If we can trust the testimony of some thinkers visual imagery is never of any service to

them in their thinking. And surely many concepts can be held in a more stable unvarying way before the mind, with the aid of language, than can their associated visual imagery.

But the failure of some psychologists to recognise the pure thought-element may perhaps be ascribed to another cause. The Sensationalist doubtless tends to look for imagery in the concept. *Some* imagery he finds in the given moment of conceptual consciousness, and this at once he puts on one side, rightly enough. But in studying the remainder, he still seeks for something of an imaginal nature; and if, as his opponents hold, the remainder is essentially non-imaginal, there is no wonder that he fails in his search. It should be noted that the richer his own mental life is in imagery, the more likely is it that this will attract and absorb his attention in the act of introspection.

Further, we should possibly be prepared for greater differences of type between different thinkers than has hitherto been recognised. It is obvious of course that there are enormous differences between individuals in respect to the amount of imagery which accompanies a word and its meaning. But besides this is it not possible that more of the *meaning* of a word appears as imaginal to some men than to others? Thus if, as Prof. Stout has contended (in the new edition of his *Manual*, p. 172) meaning, being essentially related to presentional experience, is (partly at least) constituted by "the nascent excitement of complex dispositions" left by such presentional experience, then may it not be true that with some men such nascent experience is brought in part to full birth and appears as fuller and richer imaginal experience? This would leave these thinkers with a still smaller residuum of "pure" thought-element—proportionately harder to detect.

Having decided that concept and image are distinct mental elements, Dr. Aveling takes up the question of the relation between them. This relation cannot be described as parallelism, for clearness of imagery is very far from varying directly with the clearness of the concept. Nor will Dr. Aveling allow that the concept is epiphenomenal to the image, for the concept may be found without imagery. The author adopts the hypothesis that the bond between image and concept is itself a conceptual element inherent in the revived image itself. "Thought images obtain mainly between conceptual contents." "Where images are revived as contents . . . they are revived by reason of a conceptual element in virtue of which alone they can become present to consciousness as images."

This connexion between the image and its own conceptual element owes its origin to the presence of the concept in perception which is then and there associated with the sensory impressions. All association then is conceptual.

It does not seem to me that Dr. Aveling makes this point clear. "Nonsense syllables," he says, "must be learned before they can

be reproduced. This learning, we suggest, is their subsumption under concepts or the providing of concepts for them in virtue of which a conceptual sequence can be formed" (p. 159). But surely nonsense-syllables can be and are learnt without "meaning" anything; at least the only concept under which they are subsumed is the quite general one—"nonsense-syllable". In so far as each one has its own definite concept they are nonsense-syllables no longer and the experiment fails. It seems to me that Dr. Aveling makes undue use of this point that in the crudest perception we have a conceptual element. He limits his statement indeed to "adult human consciousness" (p. 115). If it is not also true for the perceptions of the child, and even of animals, it would hardly seem that the conceptual element is essential for association. At least it does not seem essential in the *reproduction* of the associated ideas whatever may be the case at the moment of establishing the association. For revivals of images, both visual and auditory, may recur without our being aware, until some subsequent moment, of the conceptual link between the images themselves or between the images and the idea which they accompany or follow. The case of kinæsthetic sensations seems even clearer. In motor habits we surely often have a series of sensorial elements each of which is linked with a neighbour in a way that seems independent of our idea of the various movements.

The admission of the direct association of sensory elements would not, it seems to me, be inconsistent with Dr. Aveling's main contentions. And in any case he has to admit at least one type of association in which one of the terms is non-conceptual, *viz.* the fundamental association between the sensory element in the revived image and the conceptual element which enters into the perception of the object sensed, and which recurs necessarily with each recall of the image.

I have already indicated the distinction between the two questions: (I.) Is there a conceptual element which is not resolvable into imaginal elements? and (II.) Does such a conceptual element, if it exists, ever exist and function in consciousness without the co-operation of any sensory element, *e.g.* visual, auditory, kinæsthetic or other imagery (including word images) or a percept?

Dr. Aveling's observers seem unanimous in asserting the *existence* of the conceptual element which is not analysable into imagery of any kind. The nonsense-words constantly give rise to "meanings" before any imagery is aroused, even without any relevant imagery being aroused at all, and before any other words are recalled. But Dr. Aveling seems to go farther than this and to assert that thought processes can proceed in entire independence of sensory elements. Thus he writes (p. 172): "We cannot indeed explain the genesis of thought without the presence of a percept with all its sensorial implications; but we find that when the concepts are once extracted, abstracted, they can appear as terms in a conscious

sequence without essentially related sensorial contents". "Thinking . . . can take place with concepts alone as contents." This may very likely be true, but it is doubtful whether it is proved by Dr. Aveling's experiments. True he gets concepts without images, but these concepts are given as meanings bound up with the nonsense-words, which had acquired these meanings in the course of the learning period, and which provide a sensory basis or nucleus to which the meaning may cling, though doubtless, as Prof. Hoernlé has insisted, the meaning does not appear as a mere "fringe" of the word in consciousness but rather *vice versa*. I do not however wish to imply that there must necessarily be a change in such a sensory basis for every change in the conceptual elements attached: thus we may be prepared to find, as we do of course, that the meaning of a word may change for us and develop from moment to moment.

Dr. Aveling represents the thought processes which he finds as follows:—

Stimulus word → concept → reaction.
Stimulus word → concept → image → reaction.

For a proof of a purely conceptual process, with an entire absence of related sensorial elements he would seem to require to demonstrate the transition of thought from concept to concept, *without either concept having a related word or image.* This may be possible, if difficult, to prove experimentally, but these experiments do not seem to have proved it.

Perhaps Dr. Aveling comes nearest to showing it in the discussion of the predicate, in the "Completion of Judgments" experiments (*e.g.* All digeps are . . .). Here he states that previous to the experiments he supposed that the words employed by the observers as reaction predicates, being normal words, would be with great difficulty, if at all, discriminated from their meanings. Yet it was found that the meaning to be expressed in the reaction word often arose in consciousness before the symbol, *e.g.* "all digeps" were thought of as "fruit" before the word fruit or an image of fruit came into consciousness. Have we here then cases of a conceptual element isolated from all sensory elements? Of the eight cases of which Dr. Aveling gives the detailed introspection, several seem to have had images accompanying the meaning of the predicate. In several of the other cases an unsuitable word came as predicate, but with a right meaning, *i.e.* a meaning suitable to the subject. Only one or two protocols indicate clearly that the meaning of the predicate was present without either image or suitable word. And even in these cases it seems highly probable that the *subject* of the judgment was still present in consciousness, and that the meaning given in the predicate, being given as an elucidation of some aspect of the meaning of the subject, has still the subject word as its basis or nucleus. This explanation would fit in well with one of Dr. Aveling's own contentions. Thus in explain-

ing why the predicate word occurs simultaneously with its meaning (instead of after it) so much more frequently in the individual judgments than it does in the universal judgments (75 per cent. against 33·5 per cent.) Dr. Aveling refers to the fact that almost invariably some imagery accompanies the subject word and concept of the individual judgments. Then "the sensorial part of the subject content perseverates and conflues over into the predicate concept, thus in some way strengthening the tendency of its associated word symbol to appear concomitantly with, or at least chronologically and introspectively indistinct from it". If this be so then, when no visual imagery accompanies the subject, it is surely possible and indeed likely that the subject *word* should "perseverate" in consciousness when a predicative meaning is thought.

An example which may seem to offer evidence of concepts without any relevant sensory basis may be found in a mental slip common to everyday thinking, *viz.* the occurrence of an entirely wrong word, where we know, however, exactly what we mean; as, for example, when I say "I want my hypothesis" and yet know quite well that what I want is my umbrella. It would be of interest to know whether these cases occur without there being any imagery related to the concept. The present writer has carefully observed some eight or ten instances of such slips recently, with this special point in view; he has so far invariably discovered that there has been some relevant imagery present. (Apparently, by the way, the *meaning* of the irrelevant word is not present at the moment when it is spoken. It would seem to be used just to fill in the verbal blank.)

We turn to the question of the functioning of imagery other than word images. As one would expect it was found that such images appeared far more frequently with particular judgments than with general judgments. Indeed with the former they were rarely absent and with the latter rarely present, the universal being normally present to consciousness as an imageless concept.

Images however tended to appear even in universal judgments when thought was baffled, a result confirmed by experiments more recently conducted in the Cambridge Psychological Laboratory.

The universal or individual reference of a term is regarded by Dr. Aveling as an "overknowledge content," conceptual in its nature, and probably also a "separate thought element," *i.e.* quite *additional* to the concept proper. Thus in the judgment "Squares are four-sided figures" the consciousness that the judgment refers to *all* squares is something additional to the concept square.

The phrase "separate thought element" is perhaps unfortunate, as we cannot of course suppose that the overknowledge can exist apart from the concept whose scope and reference it defines. Otherwise the position seems sound psychologically. Logically no doubt we can only indicate by the term "square" (without limiting words) a conception which would embrace all squares. But in

actual thought this need not be so. The concept may not be explicitly referred either to one individual or to all of a class. Hence we are not surprised to find that the subjects of the experiments frequently asserted the absence of any such reference in their use of concepts, 35 per cent. of all the judgments being of this type. Such was especially the case with negative judgments.

In conclusion it may be added that the amount of criticism in this notice is to be taken as an evidence of the reviewer's high regard for the importance of Dr. Aveling's work. The main conclusions seem to him sound and the work as a whole is characterised by thorough and penetrating thought.

C. W. VALENTINE.

Conduct and its Disorders, Biologically Considered. By CHARLES ARTHUR MERCIER, M.D., etc. London: Macmillan & Co., 1911. Pp. xxiii, 377.

"CONDUCT," says Dr. Mercier, "is what we are all engaged in from birth to death; and yet, though many departments of conduct are described in many books, there is not in existence, curiously enough, any comprehensive study of conduct as a whole—any general view of the field of human activity" (p. vii). This book aims at presenting such a study. It is not ethical, nor political, nor economic; it is biological. To yield its proper value, however, it must be read with Dr. Mercier's other studies, —*Sanity and Insanity; Psychology, Normal and Morbid*, and his still earlier work on the *Classification of the Emotions*. In his well-known view that "insanity is, in the main, disorder of conduct" (p. ix), a view fully expanded in his *Sanity and Insanity*, we have a hint of the need for a biological study of human conduct, that is, conduct not as right or wrong (which is ethics), but as actual (which is biology). Of course, this is an abstraction for the purpose of discussion and system, not for a final estimate of values. "I have estimated the various modes and phases of human activity in the light of their value in securing the survival of man in the struggle for existence" (p. xii). If, however, we are to assume that certain "conducts" are essential to survival, ethics must limit its "right" and "wrong" on this presupposition, and to that extent this essay towards a "biology" of conduct must be accounted "ethical," a necessary implicate of any theory of "ought". But we may accept Dr. Mercier's standpoint as sufficient for his purpose—a survey of the actual content of conduct.

"Conduct is Action in pursuit of ends, and is composed of Acts undertaken to attain Ends" (p. xix). "An act, then, is movement, or arrest or suppression of movement, done with a purpose. By an End is meant a purpose" (p. xxi). On this basis action varies

according as it is spontaneous or elicited, abundant or scanty, instinctive or reasoned, self-indulgent or self-restrained, impulsive or deliberate, voluntary or involuntary, novel, habitual or automatic, original or imitative, crude or elaborate, work or play, skilful or unskilful (p. xxiii). The First Book is given to the study of Action; the second to the study of Ends, and the means of their attainment.

"The simplest manifestations of rudimentary conduct in the simplest organisms, occur spontaneously. They are not responses to stimulus from without" (p. 3). This is the position suggested by Bain in his doctrine of "spontaneous activity"—a doctrine that, whatever be its psychological value, has, on the whole, held its ground in biology. "Thus it is true, at the top as well as the bottom of the scale, in man as well as in the amœba, that the primary initiation of conduct, and the possibility of conduct, is the accumulation within the organism of a store of motion that imperatively demands expenditure" (p. 5). Dr. Mercier argues this against the theory (*a*) that the root of conduct is a "reflex act" (p. 6); (*b*) that the origin of conduct is volition (p. 7). "Our aim is to find explanations that are not psychological but biological, and in this connexion an explanation in psychological terms is irrelevant" (p. 7). As, however, conduct is afterwards discussed as "voluntary" or "involuntary," it is somewhat difficult to understand why "explanation" is limited in this way. Perhaps it is more a matter of terms than of substance, and Dr. Mercier does not seem to maintain perfect consistency later when (p. 55) he speaks of a "novel act" as needing "more exertion, both mental and bodily, in proportion to the result, than an established act". He also speaks (p. 54) of "the strongest exertion of the will". Biology thus includes "mental" and, if so, psychological "explanations" can scarcely be called "irrelevant". But possibly, as is obvious from Dr. Mercier's other works, he simply means to keep the biological standpoint in discussing the conduct of a psycho-physical organism.

There are many other interesting points in the First Book. Thus on the question of "the inheritance of acquired qualities," Dr. Mercier maintains that "the distinction between the inheritance of a capacity to act, and the inheritance of a capacity to learn how to act, breaks down" (p. 62). He bases his case on the variations in the "perfection" of instinct and its educability. It is not made quite clear whether he regards a transmitted "capacity" as generated by the previous individual experience of the parents, or simply as the possible action of a structure that has been inherited. The similarity between "automatic" actions and "instinctive" actions does not seem to involve any contradiction even of the extreme Weismann position and Dr. Mercier's argument to the contrary seems to me inconclusive (p. 61).

In Book II. there are many practical discussions of ends. The book, indeed, forms an easily grasped survey of the "average"

person in an "average" society. On the "alcohol question" (p. 93), Dr. Mercier lays down certain generalities that deserve careful consideration. His explanation of agoraphobia (p. 108) as a reversion to the primitive animal's reliance on standing objects or poles for safety against the possible dangers of the open flat, is certainly ingenious; but less remote explanations, such as Freud's, seem to me closer to the complications of the problem. "The craving of the subject of this malady (agoraphobia) is not, as usually supposed, to be in a closed space; but to be near to some tall vertical object" (p. 109). This is perhaps true in well-defined cases, and perhaps this "origin" is as good as any suggested biologically; but this phobia belongs to an infinite family of phobias of every grade of seriousness. I should not be inclined to make the remote "origin" of this single phobia quite so specific when proximate explanations are at hand.

There is an interesting and serviceable classification of "social conduct" on page 129,—elicited social conduct and spontaneous social conduct, each with several subdivisions. For each type of conduct, such deviations as constitute "insanity" are indicated and thus the sketch, though somewhat generalised and based on familiar examples, is a good guide to the study of abnormal conduct, and a convenient repertory of current questions in the casuistry of social behaviour. Thus of punishment: "My object is not to consider what conduct ought to be, but to describe what conduct is; and, that punishment always is, in fact, retaliatory, there cannot, in my opinion, be any doubt at all" (p. 230). In light punishment for serious offences—"the main reason of our dissatisfaction is the inadequacy of the punishment to the offence, the want of proportion between the pain that the offender suffers, and the pain that he has inflicted" (p. 231). He discovers in modern society a tendency to excessive sympathy with gross criminals, *e.g.* the child-murdering mother (p. 233), and suggests that such sympathy is on the border-line of insanity. Possibly, this is legitimate observation in certain instances; but as a contribution to social survival, this alleged "perverted and spurious sentimentality" (p. 233) may be the revolt of social instinct against the present one-sidedness of a punishment like sentence of death for child-murder, regardless of extenuation (the father going scot-free), and may be a social "variation" with survival value. Dr. Mercier's criticism does not, in my opinion, go deep enough in this matter. Neither does his view of toleration. "Toleration in religion is of late appearance, because, until lately, it could not have been permitted without danger to the State" (p. 255). One would like to have a defining date for "until lately" and to know which form of the "state" would have been endangered by toleration before that date. Here generalities are of little value; we require authenticated and criticised history. After distinguishing between "expression of opinion" and "advocacy of modes of conduct" (p. 256), Dr. Mercier says: "On this

principle, it appears to me that, with respect to the expression of opinion as to what is, tolerance is right and intolerance wrong; but with respect to advocacy of action that appears to be inimical to the community, intolerance is right and tolerance is wrong" (p. 258). Of course, "right" and "wrong" must be interpreted biologically. "All difference of opinion is, as has been shown, incipiently disintegratory" (p. 260). Consequently, conduct based on such difference must be seriously considered by the "community" as a whole. "However much we may deplore the suppression of the researches of Roger Bacon, of Bruno, of Galileo, and of many another pioneer and martyr of Science, we cannot but recognise that scientific research is harmless in highly-organised communities only; and that the first necessity for a community is its own preservation" (p. 260). But if this is so, why do we "deplore" anything that is essential to the preservation of a "community"? The implication of the argument is that the community ought to be preserved. This argument would justify as of survival value every crime committed against freedom of thought by every so-called "community" in history. The fault in the argument seems to me to lie in the uncriticised use of abstractions like "community" and "difference" of "opinion". Among those familiar with the administrative mechanisms of a "community," the community as a whole is not so much a fact as a regulative idea and its content depends largely on the concrete problem to be solved. And difference of opinion is, for the most part, differentiation of opinion—the normal method of intellectual growth, and it involves integration as well as disintegration.

Many other disputable points emerge in Dr. Mercier's book; but enough has been said to indicate the general standpoint and the drift of the argument.

W. Leslie Mackenzie.

Wahrheit und Wirklichkeit: Untersuchungen zum realistischen Wahrheitsproblem. By Dr. Aloys Müller. Bonn: M. & E. Weber. Pp. 64.

This little book is an attempt to work out more fully the distinction between truth and faithfulness to reality (*Wirklichkeitstreue*) which Dr. Müller introduced with a promise of further treatment in an appendix to his work, *Das Raumproblem*. Either I am very dense or it is written in such careless phraseology as to make parts of it excessively difficult to criticise.

It begins straightforwardly enough by postulating what the author calls '*Idealrealismus*'. This assumes that there are two sorts of absolute realities, psychical and non-psychical, and that their interaction produces for each man his phenomenal reality. This

phenomenal reality may be called a representation [1] (*Abbild*) of the transcendent reality, in the sense that the two are correlated. We may note at the outset what Dr. Müller does not mention that, with this definition, the transcendent reality is as much a representation of the phenomenal reality as conversely, since if A is correlated with B, B is correlated with A. Dr. Müller calls the phenomenal reality a synthesis of objective and subjective factors. At this point the confusions which I seem to find begin. He says that a representation is always a synthesis because the qualities of the original which is represented and of the reality on which it is represented melt together in the representation. This passage contains two obscurities. In the first place the phrase 'to be represented on something' (*abgebildet auf*) is introduced with no explanation. 'On' is of course a metaphor; the metaphor in question is quite familiar and intelligible in mathematics when we can talk of representing points of space, for instance, in the number system by giving co-ordinates to them; but what does the metaphor mean here? Is the transcendent reality represented 'in' or 'on' the mind? If so, since the mind is part of the transcendent reality, the latter is represented on a part of itself. There is no objection to this; the system of integers can be represented in itself by correlating them with the even integers; but surely we might have been told precisely what the author means. What I take to be the real meaning of the passage is as follows. *Each* man's phenomenal reality is of course a representation in the author's sense *both* of his soul and of non-subjective factors (including possibly other souls) in the transcendent reality. But you may also call it (or at anyrate a part of it) a representation of the non-subjective part of the transcendent reality on his own soul. Here 'on' has simply the meaning that the phenomenal reality partly depends on the nature of his own soul.

I do not feel sure that this is a fair interpretation of Dr. Müller, and I pass to the second obscurity in the passage quoted above. The word synthesis and the statement that the qualities of the original and of that on which it is represented are melted together in the representation both suggest that the mind and the non-subjective reality are in some sense contained substantially in the phenomenal reality with their separate qualities in abeyance as is supposed to be the case with the elements of a chemical compound. I see no reason to suppose that this is true, and anyhow it is obvious that it is not implied by the mere fact of representation defined as correlation. Yet Dr. Müller seems to think that it is implied in this.

The author now defends the theory of *Idealrealismus* against

[1] No doubt the proper translation of *Abbild* as a technical term of mathematics is 'transformation'. But it might lead to misunderstandings to call phenomenal reality a transformation of transcendent reality, because of the non-technical sense of 'transformation'.

Realists who are supposed to object that, since truth means agreement of idea with object, and since we have *e.g.* presentations of colours and the notion of causality, therefore there must be colours and causality (and not merely correlates to them) in the transcendent reality. If any realist is so silly as to make this objection he is conclusively answered by Dr. Müller, who points out that only judgments can be true and not presentations, and asserts that the agreement involved in truth is the agreement of the content of a judgment with its object. What the supposed realist has done is to confuse Truth, which is a predicate of judgments alone, with Faithfulness to Reality, which is a quality of representations and as such may be a quality of objects either of sense or of thought. He has also used the definition of truth as a criterion of the truth of a particular theory of knowledge. This, Dr. Müller says, is very inconsistent, because the realist admits that, as a rule, you have to find out whether a particular judgment is true by criteria other than the definition of truth, and only wants to 'take the high priori road' in the case of the objects of presentations. I agree with Dr. Müller's conclusions here, but I am sceptical about the supposed realist who is refuted. The objection that he makes to *Idealrealismus* is so absurd that it is scarcely possible to state it even plausibly. It is strange, by-the-bye, that Dr. Müller's realists always regard the soul as a mirror and are justly blamed for doing so; it never seems to have struck them that the soul might directly cognise transcendent reality.

I cannot agree with Dr. Müller that the definition of truth can *never* be used as a criterion of any particular theory. If truth means agreement and some one produces a theory that rests on the view that truth is coherence it is surely open to us to criticise his theory because we disagree with his notion of truth.

The rest of the book is devoted to an analysis of faithfulness and its relations to truth. Here, too, there is much that I (at any rate) find obscure. We are told that colours, for example, are themselves syntheses of phenomenal factors of the second order. On the objective side these include ether waves. Hence colours can be said to have 'phenomenal faithfulness,' for they are representations of ether waves and other factors which are themselves phenomenal. But these factors of the second order are themselves syntheses of factors of the first order. This is plain enough, though of very doubtful validity. I cannot see in what sense an ether wave is a phenomenon. It never appears to any one and never can do so. Surely then it is either a piece of transcendent reality or nothing at all.

But now there comes a passage which I cannot follow. We are told that the world of everyday and the world of physics both have phenomenal faithfulness and are both syntheses of factors of the *second* order. But surely ether waves belong to the physical world, and we learnt that they were syntheses of factors of the *first* order. Nor do I see quite what is meant by saying that the physical world

has phenomenal faithfulness. I suppose, however, that the author means that ether waves are as much representations of colours as are colours of ether waves. If this is what is meant we must grant that the transcendent reality has phenomenal faithfulness too.

In § 12 there are some very odd remarks about invariance. If A is a representation of B, that which A and B have in common is called an invariant for the transformation. Now the degree of faithfulness depends in any given case on the range of invariance, and the measure of this is the biological one of fitness in the representation to support and develop life. To this I can only reply that I think the author must be confusing community with closeness of correlation. There can never be much *in common* to phenomenal and transcendent reality, and I see no reason to suppose that there is more community as the faithfulness of the representation increases. But increased faithfulness does mean greater closeness of correlation in the sense that the relation between original and representation approaches nearer to a one-one relation.

In § 15 there is another mass of difficulties. Faithfulness can belong to what Dr. Müller calls '*Urteilsbilder*'. Since these include the world of physics I suppose they are objects that can only be known by descriptions. The objects of such judgments are 'relations in a representation'. These representations may be *contents* of presentations or judgments. Hence presumably they are psychical, for he says that he uses 'content' in Meinong's sense; and he certainly said that the content of a judgment was the affirmation or negation of the existence of its object. Now he gives as an example of the judgments that he has in mind, 'This table is round'. I cannot see that the object of this judgment is a relation in a synthesis of affirmations or negations or of anything psychical. But perhaps it is only meant that the representations in question *may* but *need* not be psychical in character. But then, after telling us that the object of a judgment is a *relation in a synthesis*, he adds that the object is a *synthesis* with maximum invariance of faithfulness. I really do not see how it can be both a relation in a synthesis and a synthesis.

It is useless for me to labour through the whole book, since it is evident that it is either hopelessly confused or wholly beyond my intelligence. I will therefore merely add that it contains a chapter on the Value-theory of Truth and appendices on the possibility of different systems of truth and on the character of the Laws of Logic. I have tried to be fair to the author, and if I have failed (as is not unlikely) it is from no lack of goodwill.

C. D. Broad

VII.—NEW BOOKS.

The Positive Evolution of Religion: Its Moral and Social Reaction. By Frederick Harrison, D.C.L. London: William Heinemann, 1913. Pp. xxii, 267. 8s. 6d. net.

Nothing but respect can be felt for the almost lifelong devotion with which Mr. Harrison has served the cause of Positivism. Everybody knows his general standpoint, and everybody knows what to expect from him on a subject of this sort. In this book, which contains his "final thoughts on the general problem of religion" the reader's expectation will not be disappointed. Most of the chapters appeared originally in the form of public lectures delivered at Newton Hall. The author's general aim is to arrive at a true view of religion by examining the four main classes of objections to Positivism—'orthodox objections,' 'metaphysical objections,' 'philosophical objections,' and 'scientific and literary objections'. He meets these objections largely by raising counter-objections to the various systems on the basis of which these objections are advanced. The atmosphere becomes heavy with criticism and counter-criticism, and one is inclined to suspect that Mr. Harrison fancies that by pecking to pieces other nests he is feathering one for the Positivist Society.

In the first chapter, which deals with Orthodox Criticism, many passages read like an irenicon. *Like* an irenicon, be it said; for one is sorely tempted to apply to Mr. Harrison's essay the term "ironicon"—a barbarous word which Mr. Harrison once applied to a famous article by Huxley. Positivism and Orthodoxy, according to Mr. Harrison, have several points in common. Both insist that the most important thing in life is the abiding sense of a beneficent and dominant power. Both agree in the need for a Church. Both maintain that man has a soul and that it must be stimulated by constant appeals to conscience. Mr. Harrison illustrates the agreement of Positivism and Orthodoxy from his own religious experience. "If I may speak of myself, I can look back in memory to the time when I took part with entire sincerity in the communion of the Church of England. I am not conscious of any break in spiritual life as I look back on that. I still believe that I am seeking the same end, am filled with the same heart, and am inspired by the same order of spiritual influences" (p. 4). But lest the Orthodox should be unduly elated at finding themselves almost Positivists without knowing it, Mr. Harrison affirms that on some points there is the sharpest opposition between Orthodoxy and Positivism. Positivism has no place for three things which Orthodoxy regards as essential—an Almighty God, a scheme of Personal Salvation and a Divine Revelation. And Orthodoxy would still have to stretch itself somewhat, I imagine, in order to agree with some of Mr. Harrison's views, *e.g.* that as men, as moralists and as religious heroes, Epaminondas and St. Louis were more perfect types than Jesus. One of the features of the book is the glibness with which the author talks of Orthodoxy. It is a curious fact that the only people who seem to know what Orthodoxy is are its opponents.

The larger part of the book is devoted to an acute and searching criticism of Nature Worship, Polytheism, Catholicism, The Catholic Church, The Anglican Establishment, Orthodox Dissent and Neo-Christianity. Mr. Harrison makes no attempt to deal with the rational basis of these systems. He confines himself to a consideration of their effects as influencing society. The general line of argument is that Positivism includes what is good, and excludes what is bad, in the various 'types of theological religion'. In the last chapters an effort is made to come to grips with more ultimate problems. The evolution of religion has consisted in a gradual shrinkage and restriction in its field. Polytheism is a shrinkage from Fetichism, Monotheism from Polytheism. From Catholicism Protestantism is a violent shrinkage. But almost the only truth which this theory contains is the very obvious one, upon which Mr. Harrison sufficiently insists, that whereas Fetichism sees the supernatural in everything, Polytheism tends to limit the numbers of its superhuman beings, and Monotheism confines itself to One. Certain consequences, of course, follow from this; but the theory insufficiently recognises the gradual enrichment of religion as it has evolved from the crude cultus of the savage.

Every type of theological religion, says Mr. Harrison, must prove unsatisfying to the thoughtful man. It is Positivism or nothing. But what is Positivism? It is late in the day to ask this question. But it is perhaps worth while, because if one compares this book with Mr. Harrison's earlier essays one discovers that he seems to find it increasingly difficult to explain what Positivism is. It is so comprehensive that no single term can express it. Neither 'philosophy' nor 'religion' nor 'education' nor 'socialism' is by itself adequate to express the meaning of Positivism. "Positivism is at once a scheme of education, a form of religion, a school of philosophy and a phase of socialism" (p. xix). It supplies a Creed for Thought, a Cult for Feeling, and a Discipline for Action. So far there is nothing new. It may all be deduced from Comte's definition of Positivism as "at once a philosophy and a policy". But in this latest exposition there is a closer approximation to a monistic view of the world than might be considered respectable in an orthodox Positivist. In earlier books Mr. Harrison himself has been prominent in insisting that Positivism never inclines to any type of Monism. He even quotes with approval Dr. Bridge's statement that "the repudiation of Unity, in the objective sense of the word, is the essence of Comte's philosophy" (*The Philosophy of Common Sense*, p. xxviii). Positivism has usually carefully distinguished Synthesis from Unity. But in this volume Mr. Harrison equates them. As against modern tendencies to fissiparous research, Positivism stands for Synthesis. It strives to weld in an organic unity all the aspects of human life. Noticeable also is another tendency which can only be called pseudo-mystic. The Religion of Humanity would seem to have its mysteries. "No one can explain it in a Lecture nor in fifty Lectures" (p. 24); "There is no royal road to its understanding" (p. xix). It must be experienced: "it must grow into our conscience and sink into our conceptions". Is Positivism also seeking to gain "the modern mind" by giving it something whose blurred outlines it may love, but cannot understand? Its converts, one fears, will be few. The great opportunity of Positivism is past. It lay between 1850 and 1890 while the war between science and religion raged. But both science and religion rejected the synthesis which it offered. To-day Positivism can look only backward.

We could wish that in these "final thoughts" Mr. Harrison had made some attempt to give a philosophical rationale of the fundamental

principles of the evolution of religion. As it is, the book contains little that will be new to readers of *The Creed of a Layman* and *The Philosophy of Common Sense*, and it makes no contribution to the philosophy of religion.

G. A. JOHNSTON.

Kant's Doctrine of Freedom. By E. MORRIS MILLER, M.A. Melbourne, Sydney, Adelaide, and London: George Robertson & Company, 1913. Pp. xvi, 184. 3s. 6d. net.

It is a pleasure to welcome a book on Kant, written, printed and published in Australia. But unfortunately it seems to be contaminated with one of the characteristics of the Bush. In order to appreciate the thought contained in it, the reader must force his way through thickets of uncouth words and well-nigh impenetrable sentences. This strangeness of style is not due to carelessness. On every page there is evidence of laborious care. The phenomenon may best be explained as the progeny of the strictness of Kantstudium and the looseness of Melbourne English. The student who is not easily deterred by obstacles will find much of value in the book. It is perfectly clear that Mr. Miller's work represents the result of an extended and painstaking study of Kant, both in Kant's own works and in the immense literature which has grown up around him. Scattered throughout the book there are suggestive references to recent tendencies in philosophy. The capital expenditure on the book has obviously been great, and it is to be hoped that the return of interest will be proportionate.

Mr. Miller's study consists mainly of an exposition and criticism of the Analytic of the *Critique of Practical Reason*. This contains the 'Positive Foundations' of the doctrine of Freedom. The account of 'Positive Foundations' is prefaced by two chapters on 'Negative Foundations,' which are the best in the book. They contain a critical account of Kant's negative idea of freedom as it appears in the *Critique of Pure Reason*. The problem of freedom necessarily involves for Kant a determination of the relation which man bears to the two worlds of which he is a member. The discussion of this relation implies the problems of the limits of human knowledge and of the possibility of establishing the existence of a spontaneous cause transcending these limits. Kant's task is therefore to demonstrate that the necessity of the material world exists only within certain limits. The existence of these limits implies their transcendence. But so far our idea of freedom is merely negative. It is the negative idea of an unconditioned cause which lies beyond the world of mechanical necessity. Of such freedom we cannot say anything except in negative terms. But the way has been opened for the realisation of this idea as a positive fact of morality. In dealing with this aspect of the problem, Mr. Miller follows the general arrangement of the Analytic of the *Critique of Practical Reason*. His central task consists in showing the relation of moral freedom and the moral law. He holds that the moral law presupposes the existence of freedom. The moral law is based on freedom, and not freedom on the moral law. On the other hand, we have Herbart's view that Kant founds the transcendental doctrine of freedom upon the conception of duty or the categorical imperative, as the fundamental principle of morals. Most Kant-students would probably maintain the same view as Mr. Miller. It is possible to quote from Kant texts to support either view. And it seems that both these one-sided views contain an element of falsehood and an element of

truth. It is false that the moral law is founded on freedom, if by this we mean that freedom must first be established before the moral law can exist. It is equally false that freedom is founded on the moral law, if the moral law must first be proved to exist before freedom can exist. But it is true that the moral law implies the possibility of freedom, and that freedom implies the possibility of the moral law, because neither is possible without the other.

The general principles being established, Kant has to show their practical application. The moral law is a pure objective form, entirely dissociated from sense. How then can we bring it into relation to the desires and inclinations? Mr. Miller indicates Kant's argument: "Being a law, it must necessarily imply things or ideas which it determines as an integrative principle: it is only a law relatively to the facts which it unifies or interprets" (p. 157). But surely this is not Kant's conception of the moral law, and its relation to the desires. For Kant the moral law would exist as the moral law, even if there were no facts for it to unify. Mr. Miller deals at length with the moral law or good will as objective condition of free moral actions, and respect for the moral law as subjective condition. But he fails to notice sufficiently one point which gave Kant a good deal of trouble. Respect for the moral law is the only and undoubted moral motive. But Kant has to admit that respect is a feeling, though a 'unique' feeling, and he has already told us that all feelings are excluded from the determination of moral action. This difficulty, which Kant never overcomes, is one of many which witness to the hopelessness of his rigorous and formal conception of the moral law.

Mr. Miller's study, as he realises in some measure, is incomplete and almost fragmentary. To stop with the Analytic of the *Critique of Practical Reason* involves the omission of all consideration of the implications of Freedom in the Dialectic of the *Critique of Practical Reason*, and in the *Critique of Judgment*. The omission of the *Critique of Judgment* is specially serious. For it is only there that Kant's final effort is made to transcend his dualism. That dualism appears in the speculative critique as the opposition of freedom and natural necessity, and in the ethical treatises as the contrast between reason and desire. Not until the *Critique of Judgment* is reached is a determined and comprehensive effort made to mediate between nature and freedom, and show how the mechanical system of necessity may be organically related to the free and spontaneous self-consciousness.

In general, the expository part of the work has been well done. But the body of criticism is like the composite image of Nebuchadnezzar's dream. The criticisms vary in value from gold to clay, and it is difficult to say what is the significance of the corpus of criticism taken as a whole. Mr. Miller's merit is that he has tried to place himself at Kant's point of view. Such criticisms as those of Caird and of Prichard are intelligible, but they are misleading, because neither writer is at Kant's standpoint. It is precisely owing to the difficulty of discovering what Kant's standpoint is, that no great thinker is more easy to criticise, and none more difficult to criticise *well*. Mr. Miller's book will be found by the student to be a safe, though not an entertaining or inspiring, travelling-companion over some of the *salebrae* of Kant.

G. A. Johnston.

The Sociological Value of Christianity. By GEORGES CHATTERTON-HILL, Ph.D., Docent of Sociology at the University of Geneva. London: Adam & Charles Black, 1912. Pp. xxii, 285.

Dr. Chatterton-Hill's book, which reminds us in a way of Mr. Kidd's well-known work on Social Evolution, is scarcely written at the same level of seriousness and knowledge. The fundamental premise in both is that for reason the interests of the individual and those of society are radically antagonistic to each other, and that religion must be called in to keep the peace. The author recurs to this guiding principle many times. Religious and ethical beliefs, as he roundly says, are a weapon forged by society for the promotion and defence of its own needs; they have no significance from the individual point of view, although they come in secondary fashion to serve individual needs. The form of religion best fitted to allay the *bellum omnium contra omnes* characteristic of natural society is Catholicism. It alone furnishes a guarantee that the immutable laws of social existence, such as the subordination of the individual to higher ends, the necessity of suffering, and the maintenance of authority and discipline, will be obeyed. Tradition is the sap of social life. And the needed authority must needs impose itself from without, with a force exterior to the single mind. Hence nothing meets the case except submission to the Supreme Pontiff.

No one will deny that a position of this sort may be, and has been, stated with great impressiveness. But there are times when Dr. Chatterton-Hill's readers are forced to ask whether his language is seriously meant, or at least whether he is not using a peculiar kind of humour, and using it clumsily. In the Preface we are told that humanity has "wisely come to admit that all beliefs of a suprarational (*i.e.*, religious) nature, are equally legitimate—seeing that they are, all of them, equally unprovable"—this, too, in a book devoted to the inculcation of Roman Catholicism. Again, in an amazing passage, we are told (pp. 164-165) that "the eminently social genius of Christianity manifests itself with singular force in this equilibrium between individual and social interests, thanks to which the sacrifices of egotism so necessary for society are made to appear as benefiting likewise, if not primarily, the individual. As it is impossible that any benefit accrue, in this world, to the individual, the reaping of such benefit is, with rare cleverness, adjourned by Christianity to the world to come—that is to say to a world of which we can have no knowledge." No doubt Gibbon might have assented to the last sentence in this quotation, but then Gibbon would not have written a book ostensibly advocating the Christian faith. It may be added that these statements are fairly typical of the book as a whole. By an extraordinary *tour de force*, Jesus is depicted as a convinced eugenist: He "eliminates the parasite," we are told, and Dr. Chatterton-Hill finds it matter for astonishment that society should be forbidden, in Jesus's name, to execute those who are unworthy to exist as members of the community (p. 170).

The style of the writer's polemic may be guessed from what has been already said. "Protestantism attaches no importance whatsoever to chastity" (p. 147); "the humanitarianism of the Beecher-Stowe type that delights in hypocritical effusions over good-for-nothing niggers" (p. 178). It is nowadays happily very rare to find such poor stuff in a work written for the educated public.

Nor is the English of the book much better than its contents. The following phrases, as the French say, leap to the eye—"Engendered was religion by the social mind" (p. 13); "The duties which incumb on the individual" (p. 133); "the two atoms have fusioned" (p. 144); "it has been the fate of Christianity, as it has been the fate of science, to see its

name abused of" (p. 54). There are no such words as "perennity" (p. xi) and "revealatory" (p. 55). It is also unfortunate that a familiar verse from St. Paul should be quoted as "the beautiful words of St. Philip" (p. 82).

Finally it may be remarked that the general thesis of the volume is, if taken in earnest, thoroughly irreligious. "Religion," we read on page 40, "is thus a social creation, created by society with a view to safeguarding its own interests as against the individual." It does not seem to have occurred to the writer that faith in the Bible sense is absorbed in God for His own sake, and that Christian religion has social value only when it is accepted on at least partially non-prudential grounds. Is it not in one of Trollope's novels that we make the acquaintance of a family who say they have prayers really "for the sake of the maids"? In reading this book we have been reminded of them vividly.

H. R. Mackintosh.

Spinoza's Short Treatise on God, Man and His Well-being, Translated and Edited with an Introduction and Commentary and a Life of Spinoza. By A. Wolf, D.Lit., Assistant Professor of Philosophy at, and Fellow of, University College, London. London: Adam & Charles Black.

More than one English student had already taken in hand a critical version of Spinoza's *Short Treatise*. But Mr. Wolf is the first to bring his task to completion. And he has done so in a careful, scholarly and thorough fashion which is worthy of all praise. In this book the serious student of Spinoza will find a wealth of material laid open to him which has not previously been brought together. The translation is based on a first-hand study of the original manuscripts now extant, and variations of reading are carefully given as they occur. The commentary supplies much useful illustrative matter both from Spinoza's other works, from his immediate predecessors, and from earlier pantheistic writers. Prefixed to the work is a new life of Spinoza of an elaborate character, based upon the materials collected by Freudenthal, Meinsma and others, and utilising largely the author's special knowledge of Jewish history and practice to throw light on the various incidents in Spinoza's career.

Though the "Life" is a serviceable piece of work, I doubt whether it is in place here. First of all, a new life, considering what we already have, was not much wanted. Secondly, there is very much in Mr. Wolf's presentation that is highly conjectural. There are too many sentences like these: "The childhood of Spinoza was no doubt happy enough;" "One may well imagine the pathetic figure of the child standing by his mother's grave, and lisping the mourner's prayer in Hebrew;" "We must not, however, exaggerate the sad side of young Spinoza's life —though it certainly had its sad side. When he was in his ninth year he received a stepmother. Being but a recent Marano refugee from Lisbon she may not have been exactly the kind of woman to inspire young Spinoza with any specially warm attachment to Judaism. . . . Still, she was probably kind to the children, and the home would resume its normal tone;" "Spinoza could scarcely have been so inconsiderate as to cause his father unnecessary pain, and most probably he kept most of his doubts to himself, and remained in his father's house so long as his father lived," etc.

As an introduction to the philosophy of Spinoza the "Life" is of little

significance. What is much more wanted is an attempt to trace Spinoza's intellectual development in its earlier phases, and also a fuller treatment of the difficult critical problems arising out of the *Short Treatise* itself. Some data for this are indeed furnished by Mr. Wolf in the second part of the Introduction and in the Commentary; but the treatment is not adequate. The genesis of Spinoza's thought and its gradual unfolding need more systematic and unified discussion. Even on the question of Bruno's possible influence on Spinoza, Mr. Wolf does not seem to have a settled opinion. On page cxxvi he tells us that Spinoza "probably owed his introduction to pantheistic views partly to Jewish mysticism . . . and partly to Bruno, to whose writings, as already suggested, Van den Enden may have directed his attention"; while on page 183 we read that "no conclusive evidence has been adduced so far to show that Spinoza was even acquainted with Bruno's writings. . . . Martineau thought that most of the resemblances between Bruno and Spinoza were superficial and illusory. Neoplatonic views similar to those of Bruno were very much in the intellectual atmosphere of the sixteenth and seventeenth centuries, and Spinoza may have become familiar with them through Jewish and other sources."

The critical questions also which emerge in connexion with the Treatise are frequently decided by Mr. Wolf in a somewhat summary fashion. And while on special points a comparison is largely made between the *Short Treatise* and other works of Spinoza, the point of view and general attitude of the writer in each demands more definite consideration. Nevertheless the English student of Spinoza's philosophy will find this volume an indispensable quarry of valuable material for throwing light on the early growth of Spinoza's thought.

ROBERT A. DUFF.

The Renaissance: Savonarola—Cesare Borgia—Julius II., Leo X.—Michael Angelo. By ARTHUR, Count GOBINEAU. English Edition, edited by Dr. Oscar Levy, with twenty illustrations. London: Heinemann, 1913. Pp. lxvi, 348.

Count Gobineau is interesting as having to some extent anticipated Nietzsche, and Dr Levy believes that the root of Mr. Houston Chamberlain's system is also to be found in him. In this book we have a readable translation of a remarkable work introduced by Dr Levy's fervent assurances that a new renaissance is about to begin which will "dissipate the fog of superstition and the nightmare of democracy". Dr. Levy thanks heaven for the fact that the ideal good man begotten of Christian prejudices "Is growing wiser and a little wickeder!"

D. M.

The Masters of Modern French Criticism. By IRVING BABBITT. London: Constable & Co.; Boston and New York: Houghton, Mifflin Co. 1913. Pp. xi, 427.

This book has a claim to be mentioned in MIND because it is an effort to judge French critical writers by applying to them certain purely philosophical conceptions, such as the One and the Many, understanding by that the One of thought and the Many of sensation. "Men are ready to follow those who appeal from intellectualism to the intuition of the Many; though in itself this appeal can result only in a decadent naturalism." Renan and Sainte-Beuve are great doctors of relativity, but the ideal critic must "carry into his work the sense of standards that are set abeve individual caprice and the flux of phenomena; who can, in short,

oppose a genuine humanism to the pseudo-humanism of the pragmatists". The book is interesting, but the philosophical strain in it not wholly an advantage.

D. M.

Esquisse d'une Interprétation du Monde. Par ALFRED FOUILLÉE, d'après les manuscrits de l'auteur revus et mis en ordre par Émile Boirac. Paris: Librairie Félix Alcan, 1913. Pp. lxvi, 417.

This outline of an "interpretation of the world" was appropriately the last work which the indefatigable pen of the late Alfred Fouillée brought to, or near to, completion. The task of Philosophy, he affirms at the outset, is threefold: first, to assert and demonstrate its own permanence beside positive science, while yet allying itself to the latter in interpreting the world; second, to uphold its speculative bearing and its own valuation of truth in face of the "praticiens et techniciens de toute sorte" who would subordinate it to utilitarian or ethical investigations; third, to uphold its proper character as *cognition of reality*, while giving their legitimate place to the suggestions of instinct, intuition, and the emotions. The necessity for these tasks is explained in an admirable introduction, while the remainder of the book is itself an attempt to fulfil them. The author reviews in turn all the systems of thought which make any sort of claim to be "interpretations of the world," idealism, atomism, interpretations of the world in terms of time and space, mechanistic and materialistic theories, evolutionism, determinism, pluralism; finding them all inadequate to stand as interpretations of the whole. The work is thus critical rather than constructive, and the positive basis of the criticism is to be found more adequately in certain other works of the author, particularly *La Liberté et le Déterminisme* and *La Psychologie des Idées-forces*. The treatment is on the whole, as one had learned to expect from Fouillée, if not always profound yet always sane, clear, liberal, and comprehensive. Perhaps the most interesting part of the polemic, as it is the most sustained, is that directed against the extremer views of the Bergsonians. Although Fouillée was himself influenced by the teachings of M. Bergson —perhaps more deeply than he was aware—yet anything which savoured of "anti-intellectualism" was anathema to him, and here he enters against it a strong and well-reasoned protest.

There is a large appendix to the book, being a collection of fourteen short essays on various philosophical questions. One of these, that on "the true conception of liberty," is an interesting final statement on a subject to the consideration of which the author had returned again and again. He concludes thus: "L'acte le plus libre n'est donc pas l'act, sans motifs, mais celui qui a pour motifs simultanés: 1°, l'idée de notre moi individuel et libre: 2°, l'idée de l'objet universel ou du bien universele qui apparaît comme devant être préféré à notre bien propre". Of the other essays one turns with most interest to that on "Natural Religion," which seems to have been a summary prepared for a projected work on *Equivalents Philosophiques de la religion*. But the summary is disappointing, and suggests once more that Fouillée's true place was with the critics rather than with the pioneers.

R. M. MACIVER.

Université de Louvain, Annales de l'Institut Supérieur de Philosophie. Tome II. Année 1913. Louvain and Paris, 1913. Pp. 688.

This second "year-book" of the philosophical Faculty of Louvain keeps well up to the high standard of excellence set by its predecessor. As

before, experimental psychology and sociology bulk very prominently in the volume. Space forbids me to do more than call attention to the excellent articles of which the book is composed. In Sociology M. Defourny discusses the methods of social science, and M. Lambrecht the concept of *Völkerpsychologie* as understood by Lazarus, by Steinthal, and by Wundt. Under the same general heading may be classed M. de Hovre's elaborate account of "Social Pædagogy in Germany" and Father Gillet's plea for the domination of education by the clergy, entitled *Le Problème pédagogique*. Though candid observers would probably admit a good deal of what Father Gillet has to say on the defects of a purely secular system and could hardly quarrel with his insistence on the need that education should be a moral discipline, not a course of mere intellectual instruction, it is to be hoped that he has exaggerated in his gloomy picture of the amount of youthful criminality in Belgium; I am sure that his vague but pessimistic assertions about our own country are extravagances, made, no doubt, in perfect good faith. Experimental psychology is represented by a report from MM. Michotte and Portych which continues that given in 1912 of the results of M. Michotte's experiments on "logical memory". The present instalment of the report deals with "reproduction after intervals of different length". Mr. F. Aveling, the only British contributor, also supplies an important study on researches made by himself at University College, London, to test the value of the doctrine of "imageless thought". His experiments go a long way to establish his main thesis that thought, as a process, always contains "concepts without sensorial elements," and that it is *only* these "imageless concepts" which are indispensable to thinking. ("Associated images" merely attend the thought-process without "supporting" it; association, or reinstatement, by "similarity" can only take place between two or more concepts which are included in the same more comprehensive concept, not between sensorial contents. This is why it is true that similarity is "partial identity".)

M. Diès contributes an interesting and excellently written essay, *La Transposition Platonicienne*, dealing with the attempt of the *Phaedrus* to find a philosophical basis for rhetoric and to spiritualise the conception of Eros. There is also a fragment of the late M. de Lantsheere dealing with the general character of modern philosophy, to which are prefixed a portrait and a short biographical notice, and, finally, a suggestive "note" by M. Noël on the possibility of finding a place for "epistemology" in a Thomist scheme of philosophy.

A. E. Taylor.

Der Wahrheitsgehalt der Religion. Von Rudolf Eucken. Dritte umgearbeitete Auflage. Leipzig: Veit und Comp, 1912. Pp. xiv, 422.

The chief outlines of Eucken's world-view are becoming widely known as his books appear in ever-multiplying editions. Few writers possess his subtle varied knowledge of the modern mind, and its attitude to religion. The religious problem he has long approached from the side of the study of spiritual life as a whole. It is no use attacking it by way of abstract conceptions, or by taking the individual as point of departure; we must begin from spirit. Spirit is what has produced civilisation (*Kultur*), a bigger fact than science, and therefore more deeply significant of the inner nature of its ground and productive cause. Further, spirit is active, indeed activity itself. Civilisation is not something given, but something made and ever being made afresh by spiritual action. And the universality of spirit may be gathered from the intellectual and moral community of goods which pervades the human world.

But spirit is not identical with reality. Nature, which confronts it with a system of discrete elements and mechanical causation, invades human life itself in the at first undisciplined system of lower natural impulse and propensity, on which spirit is called to impose order. And it is the confluence or collision of these two tendencies—mechanical law and spiritual norm—within the soul that gives rise to religion. Life is riven by the opposition between free independent creative reason and the soulless hostile realm of cosmic mechanism and materialistic culture. The world we have constructed is too much for us ; people are so absorbed by living, they have no power to live. Work and pleasure devastate the inner man, and the result is scepticism, pessimism, neo-romanticism. Wholeness and depth of spiritual being, Eucken argues, can only be obtained by the re-establishment of religion as a social power. Not progress but redemption is our need. Whether man is to rise to the higher level depends on his will to affirm the higher values ; free action, not logic, decides ; but it is invariably found that to make this affirmation reveals the existence of a new world—the world of personality. We are not so much persons by nature, as candidates for personal life. Persons in the proper sense are those who have faced nature, without and within their own being—its immensity, its indifference, its destructiveness, its treachery—and have realised an inner superiority to it all. That they are not alone in this effort to transcend nature, it is argued, is demonstrated by the fact that spiritual life has hitherto survived its perils, carrying its ideal conceptions to an ever higher point. This can only be in virtue of an absolute Spiritual Life existing as the ground and inspiration of human achievement, and conversely the true significance of the human fact is only recognisable in the light of a Divine presence pervading and sustaining it. Apart from this transcendent reference, man is a mere bit of nature, devoid of genuine activity, freedom or value. In the acknowledgment of and union with this higher Spirituality, or God, lies the hope of completed freedom and personality. And as self-positing action is the core of human personal life, it must be so with God too. His reality cannot be either proved or defined or exhausted by theoretical explanation, but thought must think Him into the world, and the spirit must find in Him its deepest experience.

These are the ideas presupposed in and permeating Eucken's book on the "Truth of Religion," now in its third edition. His discussion gathers mainly round two *foci*—religion as universal and religion as characteristic. By these rather obscure terms he denotes a distinction in his view fundamental. Universal religion is religion in vital contact with culture—that is, with science, law, morality, art. Not that religion interferes, but it furnishes and maintains a secure area of operation. Science is intelligible only if there be a universal spiritual medium of which men of science can take advantage to communicate and interchange knowledge, and which puts them in touch with reality as such. In fact, religion and culture need each other if both are not to go bad. Separated, they become corrupt and unprogressive ; but in the *entente cordiale* thus determined, religion is in Eucken's view the predominant partner. Characteristic religion, again, is spiritual life as it were taking refuge with God in its struggle with a hostile and refractory world, and thus rising superior to the oppositions and obstructions thrust in its path. Here religion ceases to be a mere general basis for culture and becomes an independent interest of the most poignant kind. It develops and lives in a life peculiar to itself. There emerge such things as love for enemies, triumph over pain, true inwardness, spiritual fellowship, worship. Love is felt to be more than justice. Merit is abandoned for trust in a Divine grace. And all this it is perceived, would be pure

semblance, not reality, unless it were rooted in immediate personal relations with God. This inmost life and God are correlative in the absolute sense.

Both sides or aspects of religion are represented in Christianity, which is discussed in the closing section. Eucken finds Christianity laden with imperishable truth and force, although he has little or no use for the ecclesiastical forms it has assumed hitherto. In his opinion, thoughtful men must co-operate in sublimating historical Christianity into shapes which may prove acceptable to an age of individualism and science. The work is worth doing, for Christianity is no poor creation of human wishes, but the index of a transcendent reality, the apprehension of which can now quite well be disengaged from supernatural dogma. A rejuvenescence of the elemental impulses of the Christian religion will bring healing to the world.

One cannot but watch with admiration and something near akin to reverence the sustained effort Eucken has for years made to re-assure the free and conscious spirit of its value and centrality. Like Green in a former generation, he will not despair of the republic, but has fought on in the front rank against materialism and naturalistic monism; and if the battle is now turning, no small part of the triumph must be ascribed to his courage and unwearied energy. Many of course will feel that his criticism is immensely stronger than his constructive work. Generalities too much abound, and "spirituality" is used to cover a multitude of gaps. Perhaps the chief gain derivable from the works of Eucken and like-minded writers, such as Troeltsch, is a deepened conviction that, in spiritual matters response to the higher validities is a choice resting on the personal feeling of truth, not a surrender to coercive logic. There is a living movement of spirit, guided by creative intuition; and only life, not speculation, can justify the venture.

H. R. Mackintosh.

Platons Hippias Minor: Versuch einer Erklärung. Von Oskar Kraus. Prag.: Taussig & Taussig, 1913. Pp. viii, 62.

An admirable example of what a study in Platonic method should be. Prof. Kraus has done more than any commentator it has yet been my luck to read to throw light on the purport of a little dialogue which has proved a stone of stumbling to a great many expositors of Plato. I think he may fairly claim that his careful analysis of the famous argument by which Socrates appears to show that *ὁ ἑκὼν ἁμαρτάνων αἱρετώτερος* proves that Plato's object is not to prove or to "reinforce" the Socratic principle that "no one goes wrong willingly," and still less to refute it. The proposition that "every one who acts at all always acts to realise the *φαινόμενον ἀγαθόν*," which is fundamental for all Greek ethical thought, is, as I should agree with Dr. Kraus, an unexpressed premiss of the whole train of reasoning which is given in the *Hippias*. Hence his further view that the dialogue was expressly composed by Plato as a model for teaching purposes, in order to illustrate the ambiguities attaching to the main terms employed in the argument, *ἀληθής*, *ψευδής*, *δυνατός*, and that its object is therefore not ethical but dialetical, and more specially "peirastic" seems to me quite sound. I would specially commend the acuteness with which Aristotle's allusions to the dialogue in *Met.* Δ, and in the *Topics* are employed to show that Aristotle recognised this point. The whole of Dr. Kraus's treatment of the *Topics* and the Aristotelian "lexicon of equivocal terms" as evidence for the methods of study employed in the Academy is excellent. In particular, his conclusion that the contents of

the "Aristotelian lexicon" (*i.e. Met.* Δ) are almost wholly Academic seems to me beyond dispute, especially when we bear in mind that the supreme importance of accurate division and definition as the means of avoiding fallacies of equivocation seems even to have been the consideration which led the Academy to concern itself with such branches of study as Biology and the Theory of Surd Magnitudes. I would even make the suggestion in connexion with Dr. Kraus's observation that the formulæ of Aristotle's logic have grown out of the practical logical rules of the Academy—that the διαιρέσεις which are mentioned in *Ep.* 13 as sent to Dionysius are most likely samples of such formal logical classifications. (That they are identical, as E. Meyer assumes, with the *Sophistes* and *Politicus*, or with any of the Platonic "works," seems to me incredible.)

The main interest of Prof. Kraus's analysis is that, if it is accepted,—as I think its main principle must be,—the *Hippias* appears as a masterpiece of logical subtlety. For, as Dr. Kraus shows, the argument is so constructed that whenever you come on one of the ambiguous terms, a true conclusion can be drawn, if you are careful to employ the term in question in the same sense in both premisses, though, of course, this true conclusion will be different according to the sense you put on the term in question. The appearance of paradox only arises because Hippias—or the average loose thinker who reads the dialogue—falls into a carefully prepared trap, and actually understands an ambiguous term in two different senses in the two premisses of a syllogism. As Dr. Kraus points out, Aristotle's remarks in *Met.* Δ, on the ambiguity of the terms ψευδής and ἀληθής, in connexion with which explicit reference is made to our dialogue, show that he—and presumably the Academy in general—quite appreciated this point. The result, then, is that the actual reasoning of Socrates throughout the dialogue is perfectly free from fallacy, and leads to a true conclusion. It is because Hippias so misconceives the reasoning as to take it in a way which involves a fallacy of equivocation on *his* part that it leaves him shocked. Thus it is true to say that the man who "can if he will" produce both bad and good results,—the man whose "technical" knowledge and mastery is such that *if* he produces a bad result (*e.g.* poisons a man), it is of set purpose and not from lack of knowledge and ability—is "better" (*i.e.* endowed with higher qualifications), than the man who only produces the bad result ἄκων, through incompetence. If you are careful, throughout the proof of the apparent paradox, to bear in mind that the knowledge spoken of is *not* "knowledge of good and bad," but simply "knowledge how to produce a given result," that "ability to produce the result" means "ability to produce it *if* one wills to do so," and that "good" and "bad" are not being used in a specifically ethical sense, the conclusion is both true and compatible with morality. The apparent immorality and paradoxicality of the conclusion "he who acts wrongly ἑκών, if there is such a person, is the "better" man" only arises if you allow your terms to shift their meaning in the course of the reasoning, so that "knowledge" comes to mean "knowledge of the good," "able to do what is bad" to include in its meaning "furnished with the knowledge how to produce the bad result *and* with the will to produce it," and "good" and "bad" themselves to bear an ethical sense. Though even with this sense of the terms a correct conclusion can be drawn. For since, on the Socratic-Platonic view, no one who knows the good is ever "able and willing" to do anything but the good, the class of "beings knowing the good and willing to do the bad" is the null-class, and it is therefore quite correct to say that they are not the class "the bad," which is *not* an empty one. This conclusion, again, has nothing immoral in it. It is only when you mix up the two different senses of the leading terms of the argument, only, therefore, when you commit a fallacy of

equivocation, that you get the immoral but fallacious conclusion, "those who do wrong on purpose are the morally good".

Of course it is clear, in spite of the puzzled comments of many of the German editors, that Plato himself could not have written so skilful an illustration of the possibilities of fallacy which beset the use of ill-defined terms without being fully aware of the ambiguities he means to illustrate, nor, as I am glad to find Prof. Kraus agreeing, is there any reason to think that Socrates was not equally alive to them, or to doubt that we have in the dialogue a true dramatic picture of both its leading characters.

A. E. TAYLOR.

Ordnungslehre: ein System des nicht-metaphysischen Teiles der Philosophie, mit besonderer Berücksichtigung der Lehre vom Werden. By HANS DRIESCH. Pp. 355. Jena: Eugen Diederichs, 1912.

It is not Dr. Driesch's wish to deny the possibility of metaphysics, but to help to prepare the way for a future metaphysics. "To 'philosophise' is to be conscious of one's knowledge (*Wissen*); thus 'philosophy' is knowledge about knowledge (*Wissen um das Wissen*)." Philosophy is "the totality of knowledge about 'something,' as a unity. To this 'something' of which there is consciousness belongs also knowledge itself. What *knowledge* means it cannot determine unless it were to say: I *know* when I have consciously a definite ordered something before me. But this sentence merely contains, in a resolved form, the same immediate unity that the word *know* expresses" (p. 1). Here it may be remarked that we have a vicious circle of the kind that has been known to logicians for the last eight years to give rise to strange logical paradoxes.

Philosophy is divided, according to Dr. Driesch, into three part: (1) a theory of self-reflection (*Selbstbesinnungslehre*), in which the ego reflects on its irreducible modes of consciousness (the theory can only describe, but is the foundation of all philosophy); (2) a theory of order (*Ordnungslehre*), which is concerned with the forms of order which the ego finds; (3) "perhaps" a theory of knowledge (*Erkenntnislehre*), which is concerned with the question: How does it come about that I know, and that I know about my knowledge, and does my knowledge about what I am conscious of and about my knowledge itself mean anything else than it is *only* my knowledge? What Dr. Driesch calls "theory of knowledge" is, then, metaphysical; it is sharply distinguished from the theory of order, "which may be called 'Logic' in the widest sense" (p. 2), which does not touch the question of knowledge properly so called (that is to say, general knowledge about something 'actual'), and would remain if there were no general knowledge and the standpoint of solipsism were valid. Owing to the richness of the German language, Dr. Driesch is able to distinguish *Wissen* from *Erkenntniss*, the latter word being apparently applied to universally valid judgments, the proof of whose existence would mean a disproof of solipsism. Surely it is possible, however, to be a solipsist as generally understood without giving up a belief in arithmetic. The richness of the German language, too, has led Dr. Driesch to impoverish it by making his vocabulary purely German (p. 10). By so doing, he has, I think, increased the labour of those who try to understand him to such an extent as, in many cases, to make their labour fruitless. A good example is the definition of a law of nature (p. 149): "Als Naturgesetz bezeichnen wir die Setzung eines durch bestimmtes Sosein gekennzeichneten Verhältnisses von Folgeverknüpfung, welches eine Natur-Klasse mit Einzigkeiten ('Fallen') ist".

The theory of order arises out of self-reflection (pp. 3-7, 16-18), and thought postulates the validity, for itself, of what it thinks (pp. 18-20). "The basal means of thought is *positing* (*Setzung*): the conscious separation, retention, and naming of any datum of consciousness (*Erlebtes*) as a 'something'" (pp. 26, 38); and, in the part on "Allgemeine Ordnungslehre" (pp. 38-130), the object of the book—the determination of the hierarchy of the forms of order that thought finds on self-reflection—is worked out by successive positings. This part is subdivided into three sections: The basal positings (*Ur-Setzungen*), the theory of quality (*Sosein*), and the positing: Becoming. The next part (pp. 132-296), on the theory of the order of the actual in nature (*des Naturwirklichen*), is divided into sections on the general theory of natural order, on the special postulate of the theory of the combination of single things (*Einzelheitsverknüpfung*) such as motion, on "*Einheitsfolgeverknüpfung*," final remarks on the order of nature, and on the beautiful. The next part (pp. 297-322) on the theory of the order of the immediate data of consciousness (*Eigenerlebtheit*); and the last two parts are on the structure of the theory of order and that of the sciences (pp. 324-330), and on the question of knowledge ("*Erkenntnis*" *als der Ordnungslehre Ausgang*) (pp. 332-341). The most general principle of the progress of the theory of order is that of the economy of positings (*Grundsatz der Sparsamkeit der Setzungen*), so that every stage stage of the theory of order always develops such and only such positings as make the next stage possible. But thought does not proceed according to this principle because it is more convenient, but because of the essential nature of thought; and thus the theory of order is distinguished from the doctrines of Mach and Avenarius (pp. 11, 35).

It is more within the competence of the present reviewer to discuss the scientific parts of the book. This alone, then, will be done here.

Meinong's "impossible objects" are to be rejected because they "come into conflict with the conception of positing or, what is the same thing, the law of double negation" (p. 49). Dr Driesch tells us with annoying irrelevancy, that he prefers his own (pp. 95-99) exposition of the introduction of number to Russell's. If we are convinced that "creation" of numbers is impossible, we would agree with Dr. Driesch's observation (p. 103) that Dedekind's "section" presupposes continuity. But we do not presuppose that there are *gaps* in, say, the series of rational numbers when we define real numbers as classes of rationals; but this definition is ignored by Dr. Driesch.

It seems certainly a mistake to state that, though it is possible to describe nature (*Naturgegebenheit lässt sich . . . formen*) without the concept of Becoming, it is more economical to use it. It is more economical to define a motion by expressing the co-ordinates as functions of the time. All the properties of a motion can be deduced from this expression, and consequently itis quite superfluous and contrary to the principle of Occam's razor to introduce such a notion as "the state of motion".

It is pointed out on p. 198 that the concept of potential energy and the law of the conservation of energy rest on postulates and contain a reference to the future. This is both true and old, but there is no ground for limiting the reference to time to the future. Such a reference is not, as might be thought from this exposition, the property merely of "theorems of conversation," but is common to all laws of nature without exception. It is an error to which we have been made accustomed by those comparatively ignorant of mathematics that there is more virtue in the constancy of something than in the equation expressing that its differential quotient is zero. Dr. Driesch would appear to share this error.

In conclusion, in nearly all parts where the present reviewer feels at all competent to form an opinion, Dr. Driesch's remarks seem either irrelevant, superficial, misleading, or mistaken; and the word *or* does not here express a complete disjunction. The extraordinarily clumsy language is a real bar to comprehension.

PHILIP E. B. JOURDAIN.

Immanuel Kant. By O. KÜLPE. Dritte Auflage. Leipzig: B. G. Teubner, 1912. Pp. viii, 151. M.1.25.

This little volume, which has deservedly reached its third edition, is one out of Teubner's Series, *Aus Natur und Geisteswelt* in which, much as in the *Home University Library* and *The People's Books* here in England, experts in Literature, Science and Philosophy make the results of their studies accessible to a wider public in a popular form. Prof. Külpe's account of Kant deserves careful attention for two reasons, *viz.*, in the first place, for its intrinsic merits as a clear and masterly handling of its subject, and, secondly, because it gives an estimate and criticism of Kant by one who may fitly be described as the foremost representative among modern German philosophers of the 'neo-realistic' line of thought. In this respect, English students of Kant may find it especially interesting to compare sections 5, 7 and 8 in this book with Mr. Prichard's *Kant's Theory of Knowledge*. In Prof. Külpe's accounts of Kant's *Critique of Pure Reason* there is only one point which I feel tempted to challenge, and that in his attempt (p. 39 n.) to minimise the importance of the distinction which Kant introduces (at a late stage, it is true) between 'denken' and 'erkennen'. It is a distinction which seems to me to make for clearness, in that it differentiates between thinking in the sense of 'judging what I perceive or conceive to be real' (which is the same as 'knowing'), and thinking which is mere conceiving and does not pass on to such a judgment and, therefore, is not equivalent to 'knowing'. In the earlier sections of the *Critique*, Kant uses 'thinking' exclusively in the former sense as a synonym of 'knowing,' meaning by it the act of thought or judgment by which, in the terms of Transcendental Logic, the manifold of sense is synthesised and constituted an 'object' which is *ipso facto* said to be 'known' (*erkennt*). This is, historically, the point of origin of the modern 'Idealistic' Logic which identifies knowledge with judgment, and treats judgment, in the language of English logicians, as the 'reference of an idea to reality' which I take to mean the affirmation that 'what I perceive and think (= "idea") is, so far as it goes, real'. Only for Kant this 'reality' with which judgment deals and which we 'know' is a *realitas phænomenon* as distinct from the 'thing in itself'. 'Denken,' then, for Kant, at first means 'Erkennen,' *i.e.*, knowing phenomena, and I should agree with Prof. Külpe's statement (p. 39) that 'ein Denkobjekt, das nicht anschaulicher Natur wäre [ist] von vornherein unmöglich,' if I am allowed to interpret 'Denkobjekt' as equivalent to 'Erkenntnis-object'. For that I take to be Kant's meaning: we can 'think' (= know or judge) nothing to be real, *i.e.*, 'empirically' or 'phenomenally' real, except what is actually or possibly within the range of sense-experience. But, of course, we can 'conceive' or 'think of' objects which do not fulfil this condition: these, therefore, we cannot 'know,' *i.e.*, we cannot affirm that they are real. The conceptions of such objects are sometimes said by Kant to be 'empty,' but this does not imply, I take it, that they are meaningless or without content, but only that they are without 'sensible' content, and hence that we lack the point of application in sense-experience which would enable us to judge these objects to be real, *i.e.* to 'know' them.

They are, in short, 'problematical'. If this view is correct, Kant's distinction does seem to be valuable and necessary to the consistency of his position.

Prof. Külpe's criticisms of Kant are especially forcible in section 5 which deals with Space and Time, and in sections 7 and 8 in which he challenges the two central positions of Kant's theory, *viz.* that what is *a priori* in knowledge must, for that reason, belong to the constitution of the knowing subject, and that this, in turn, makes the object known a 'phenomenon'. As against the first of these positions Prof. Külpe urges that when we speak of the *a priori* as 'independent of experience,' we must distinguish two senses of 'independent,' *viz.* (*a*) independent as regards *origin*; (*b*) independent as regards *validity*. He then shows that whilst Kant fails to keep these two senses apart, only the latter sense is relevant, but that in this sense an *a priori* truth is equally independent of its apprehension by, or the existence of, a knowing mind. As against the second position he argues that, even granting the 'subjectivity' of the *a priori* synthetic principles, it does not follow that they are *merely* subjective, or that their effect is to distort reality. They may none the less enable us to apprehend an independently existing reality as it is. And he tries to show in detail that whatever Kant classes as *a priori* must be counted among the 'objective determinations' (in a realistic sense) of reality, and that this is the reason why these determinations are universal for all knowing minds. The details of the argument, which is specially interesting in view of the present-day controversy between Realists and Idealists, must be followed in Prof. Külpe's pages.

Towards the end of the book (p. 142) there is one eloquent passage in which Prof. Külpe points out the absurd incongruity of the arrangement by which in the notorious 'Siegesallee' in Berlin, Kant is placed in the group commemorating Frederick William II., in spite of the fact that (*a*) the bulk of his life and work belongs to the reign of Frederick the Great, and (*b*) that Frederick William II. took notice of Kant only to threaten him with disciplinary measures on the ground that he had 'abused his philosophy to misrepresent and degrade the fundamental dogmas of Holy Script and Christianity'. The refreshing vigour of the epithets with which Prof. Külpe stigmatises the action of this 'darkness-loving enemy of progress,' without having been himself suppressed by the police, shows that in the last hundred years there has been progress even in Prussia.

R. F. Alfred Hoernlé.

Philosophische Kultur. Gesammelte Essais von Georg Simmel. Philosophisch-soziologische Bücherei, Band xxvii. Leipzig: Verlag von Dr. Werner Klinkhardt, 1911.

Prof. Simmel conceives the essence of philosophy as a spiritual attitude rather than any metaphysical content. Philosophical culture will consist, therefore, not in the knowledge of metaphysical systems, but in a radical, yet mobile, spiritual relationship, going behind all individual theories to the functional unity which underlies them. This view is exemplified and elaborated in a remarkable series of essays collected under the headings of Philosophical Psychology, the Philosophy of the Sexes, Æsthetics, Artistic Personalities, the Philosophy of Religion and the Philosophy of Culture. Specially noteworthy are the pieces on "Michelangelo" and "Rodin," "the Conception and the Tragedy of Culture," and, above all, the various essays on woman and her destiny.

The writer's genius for subtle and involved antithesis is well known;

but beneath the curious mutations of his dialectic can be detected the large movements of a few fundamental ideas. The various topics here treated with such refinements of insight are all brought under the same type of antithesis, which in the end resolves itself into that of subject and object. (The reader is reminded of the remarkable handling of the same theme in the author's Lectures on Kant.) For instance, the conception of culture which dominates the volume is that of a harmony between the soul, regarded in its subjectivity, and the "objective spiritual product"; and the tragedy of culture, arising out of the intrinsic character of the situation, consists in a predetermined rupture between the two. "Objects have a peculiar logic of their own development;" and the objective interest, which culture demands should be kept pure, leads in the end to specialisation and division of labour—both of them fatal to culture. The same antithesis appears in the titanic art of Michelangelo, which is the first to succeed in presenting the bodily form, representing mere Körperschwere, as issuing out into the perfect freedom of movement as into "a visible logical consequence". The unity of body and soul thus expressed is, however, of the Renaissance—terrestrial; and just because it attains perfection on the earthly level, it fails to give expression to the deeper yearnings after the transcendent. Michelangelo becomes "die ganz und gar tragische Persönlichkeit".

The feminist problem is made to turn upon the deeply significant proposition that woman's nature represents a more completely centralised whole than that of man, a solidarity in which subject and object do not so easily fall apart in diversity of interest and aim, or, as the writer would say, a unity in which the periphery is more closely bound to the centre. It is the tragedy of woman's being that whereas in this profound solidarity of nature the category of means and end does not reach the same depth as in man, woman in her social and physiological destiny has been handled and valued as mere means—means for the man, the house, the child, and that she is conscious of herself as such.

These illustrations are sufficient to reveal the pregnant character of the thought that underlies the subtlety of the argument. In the region of the larger human questions opinion will, of course, always be divided, and it is not to the point here to criticise mere conclusions. If anything calls for a word of protest it is the over-easy way in which the writer, in the essay on the Religious Situation, rests content with the solution which would erect the psychological fact of unrest in the religious consciousness into the ultimate metaphysical character of religion itself. Even here, however, his position is clearly distinguishable from Bergsonism, in its extremer form, from which, in spite of deeply marked traces of influence, Simmel is, on the whole, saved by a Kantian adherence to the *a priori* in every department of experience.

A. A. B.

Allgemeine Geschichte der Philosophie. (Kultur der Gegenwart, Theil I., Abtheilung 5.) Zweite vermehrte und verbesserte Auflage. Berlin and Leipzig: B. G. Teubner, 1913. Pp. ix, 620.

The first edition of this valuable work was noticed by the present writer in MIND, N.S. 74. In connexion with the reissue it will be sufficient to call attention briefly to the nature of the "improvements and additions". The work has been made much more convenient to use by the rearrangement of certain of its sections. The pages on Mohammedan and Jewish philosophy stand now in their proper chronological place immediately before the account of Christian scholasticism, and thus form, as they

should, a connected part of the story of the fortunes of the Platonic-Aristotelian doctrine instead of figuring, as they did in the misleading arrangement of the first edition, between the account of Indian philosophical systems and the sections on Chinese and Japanese thought. The great "addition" which the book has received fills a palpable gap in the original text; it is a sketch, extending to some thirty-five pages, of "patristic philosophy" from the supereminently capable hand of Bäumker, which leads up to the same author's masterly account of Scholasticism. In the actual text of the various parts of the book there is not much alteration. The sketch of the Indian systems has been slightly expanded by Oldenberg. Von Arnim reprints his account of Greek philosophy much as it stood before, but has added two or three pages to his exposition of Plato, in which I am glad to see that he shows increased appreciation of the ethical and political value of the later dialogues, notably the *Philebus*, *Politicus* and *Timaeus*. It is refreshing to discover that he rightly refuses to recognise the "tripartite psychology" and the "scheme of the cardinal virtues," as given in the *Republic*, as "Platonic". I could still wish that there had been some explicit recognition of the fact that Plato's enormous influence on civilisation is only partly due to his writings. The foundation of the Academy as a home for the organised prosecution of science, and at the same time a centre of political activity, should not be forgotten when we are forming our estimate of Plato's services to mankind. The account of Aristotle has been rearranged in a way which brings out better than before the structural anatomy of Aristotelianism, but I see with regret that Von Arnim is still in darkness as to the meaning of the Aristotelian *μέσον* in ethics, and that hardly any of the hazardous or positively mistaken assertions in his account of the "Pre-Socratics" have been corrected. He even repeats *inter alia* the absurd statement that *σοφιστής* means etymologically "one who makes men wise" Of course what it really means is one who *σοφίζεται* or practises *σοφίσματα*, —a "wit" in the late seventeenth century English sense of the word. The bibliography of this section is still curiously unjust to work done outside Germany, Prof. Burnet's *Early Greek Philosophy*, at least, should not have been overlooked, and I should add that there is English work on Aristotle that might have been mentioned, and that, with all its real merit, Prof. Shorey's monograph on *The Unity of Plato's Thought* is not the only valuable contribution of English-speaking countries to the study of Plato.

The remainder of the book remains, except for a few verbal changes, and an occasional modification or two in the paragraphing, much as it stood in the first edition. In particular Windelband's account of modern philosophy is reprinted without correction or addition. Even the gross chronological blunders in the section on Hobbes to which attention was called by the present writer in MIND N.S. 74 are repeated, and, as before, no account whatever is given of recent valuable French and German work. Mach, Kirchhoff, Meinong, Le Roy, Duhem, Ostwald, Münsterberg—to take only a few names at random—get no mention; the revival of Thomism in Paris and Louvain is passed over. English writers since Herbert Spencer are disregarded, except for a brief allusion to T. H. Green and Mr. Bradley and a vague paragraph on 'Pragmatism'; Italy, as in the first edition, is as good as totally ignored. I cannot help thinking that this failure to recognise and repair any of the omissions in Prof. Windelband's narrative carries natural piety to the dead a little too far.

A. E. TAYLOR.

Die Philosophischen Auffassungen des Mitleids. Eine Historisch-Kritische Studie. Von Dr. K. von Orelli, Pfarrer in Sissach. Bonn: A. Marcus & E. Webers, Verlag, 1912. Pp. iv, 219. M. 6.

This monograph falls into two unequal parts. In Part I. a remarkably complete historical account is given of the conception of pity or compassion. Beginning with Empedocles, Dr. Orelli states the views held by the chief ancient philosophers. Patristic and scholastic philosophy is laid under contribution, and full justice is done to the conceptions of the moderns. Of the Fathers Dr. Orelli writes *con amore;* with the scholastic philosophy he is apparently not so much in sympathy. The only Doctor mentioned is St. Thomas, and the account of his doctrine consists largely of quotations from the *Summa*. But, after all, St. Thomas represents only one side, though that is the most important side, of scholasticism. On the particular point with which this study deals, much of value is to be found in St. Bonaventure. Dr. Orelli's attention might be directed to the *Diaeta Salutis* where St. Bonaventure deals with the threefold nature and causes of compassion, and to the *Formula Aurea* in which there is a suggestive treatment of its various grades or levels. Dr. Orelli might also profitably have indicated the influence of St. Augustine on St. Bonaventure. The general philosophical value of the historical portion of the volume is seriously impaired by the author's failure to indicate the relationship and development of the various views he mentions. The transitions from thinker to thinker are of the most perfunctory kind: to take a typical example, we are shot from Bacon into the presence of Descartes with a mere apology for an introduction—"Grundlicher als Bacon hat sich Descartes mit dem Mitleid beschäftigt" (p. 51).

Part II. gives, with copious references to Part I., a systematic account of pity from various standpoints. From the psychological point of view, it possesses emotional and intellectual aspects. It admits of analysis into three essential elements—the ego which pities, the object (person or thing) pitied, and the actual suffering pitied. It is hard to see that this analysis is not both incomplete and supererogatory. If the analysis is to be exhaustive, the actual feeling of pity which the ego has is also an element in the whole. And does it really tell us anything about pity to 'analyse' it in this way? After stating the ethical aspects of pity, the author concludes with an estimate of its æsthetic and metaphysical significance. Æsthetically, pity is valuable as an effective principle of contrast, including the two moments of pleasure and pain. Metaphysically, its nature manifests itself in the two moments of particularity and universality.

On the whole, the book is marked by erudition rather than by insight, and it leaves a most unpleasant sense of the resultlessness of the struggle for knowledge.

G. A. Johnston.

Bericht über den V. Kongress für experimentelle Psychologie in Berlin, 1912. Ed. by Prof. F. Schumann. Leipzig: Barth, 1912. Pp. xxv, 324. M. 11.

A summary report on the Psychological Methods of testing Intelligence, by W. Stern, occupies the first 103 pages of this volume. It is a very full, clear, and useful discussion of the methods, results, and prospects of this recent development of pedagogical psychology. The new field of work has been plotted and probed, but it is evident that the great profits expected cannot immediately be realised. Careful critical examination

of every detail of method, test, and end in view, and the gradual consolidation of the extract must precede the attempt to base far-reaching reforms on the results of the new study.

The rest of the volume is filled with summaries of papers read to the congress. These are long enough to be of considerable interest. They serve to indicate the most recent efforts of psychology and give a forecast of works soon to be published. The full text of an address by Götz Martius on Synthetic and Analytic Psychology is given (pp. 261-281). This is an interesting attempt to remould our views of psychology for the benefit of a critical idealism. For example: objective space and objective time are most closely connected with subjective, felt, space and subjective, felt, time. The former are but immediate space and time experiences brought into the form of law (p. 270). Martius's theses are these: (1) Synthetic psychology [*e.g.* Wundt's, along with its 'creative synthesis'] proceeds on assumptions that are not necessary for an exact empirical explanation of the facts, but rest on a scientific scheme for turning essence into existence. (2) The results of experimental psychology contradict the methodological demands of synthetic psychology. The application of the principles of the latter rather complicates, than simplifies, the grouping of the observed facts into laws. (3) Psychology is naturally an analytical science, the elements discovered are not ultimate facts in the metaphysical sense. (4) Psychical life falls within the general phenomena of life. The development of the soul rests on immanent spiritual principles. The regularity of the flow of psychical events is a consequence of individual development and is not referable to the elements. (5) The phenomena of spiritual life are referable to individual psychical processes, but they constitute a superindividual reality (p. 281). The spiritual world is ontologically foreshadowed neither in the underlying materiality nor in the sensations (p. 277).

HENRY J. WATT.

Hauptwerke der Philosophie in originalgetreuen Neudrucken. Band I. HERMANN LOTZE. *Geschichte der Aesthetik in Deutschland.* Leipzig: Verlag von Felix Meiner, 1913. Pp. viii, 689. In paper, 9 M.; bound, 10. M.

This is a precise reprint, page for page, of Lotze's *History of Æsthetic*, originally published in 1868. The left-hand title-page from which the above heading is taken, replaces the left-hand title-page of the original, which described the book as volume vii. of *The History of the Sciences in Germany for Modern Times*, and was marked with the crown and arms of Bavaria and the imprint of J. G. Cotta's firm at Munich. The right-hand title-page precisely reproduces the original, bearing the title of the book with the arms and imprint as just described.

Two excellent indices, of names and of subjects, have been added, which will be a great boon to the reader.

It is pleasant to see that an interest in Lotze maintains itself; especially if one might infer that the present republication indicates a general demand, whereas the original issue of the work was due to the 'Historische Commission bei der Königl. Academie der Wissenschaften". Lotze mediates between the classical philosophy of Germany and the tendencies of to-day in a way that has not ceased to be valuable.

B. BOSANQUET.

Aristoteles Politik. Neu Übersetzt und mit einer Einleitung und Erklärenden Anmerkungen Versehen. E. Rolfes. (Philosophische Bibliothek, vol. vii.) Leipzig: Felix Meiner, 1912. Pp. xvi, 323.

An excellent German version of the *Politics*. The translation is accurate and, so far as I can judge of style in a language which is not my own, spirited. The notes are at once useful and brief. The Introduction is marked by sound sense and is commendably short. It is specially pleasant to see that Dr. Rolfes has returned to the traditional order of the successive books. The scholars of half-a-century ago were often admirably learned as well as indefatigably industrious, but it is curious to see how many eccentricities of judgment they have bequeathed to us, and how singularly unable they seem to have been to appreciate the worth of an old and well-established tradition.

A. E. T.

Der Phaidros in der Entwickelung der Ethik under der Reformgedanken Platons. V. Potempa. Breslau, 1913. Pp. vii, 68.

A careful and sensible degree "thesis" on the argument and drift of the *Phaedrus*, by a Roman Catholic student of Breslau University. The pamphlet affords a useful analysis of the rather complicated structure of the dialogue, and is, rightly I think, so far divergent from the interpretation of Thompson that it lays considerable stress on the intrinsic importance of the ethical teaching, which Thompson tends to regard as merely subordinate to the theory of the philosophical use of rhetoric. The tone of the discussion of *παιδεραστία* and the attitude to it of Socrates and Plato strikes me as exceedingly sane. It is to be hoped that Dr. Potempa will continue to interest himself in Platonic study.

Einleitung in die Philosophie. Von W. Jerusalem. Seventh to ninth thousand. Vienna and Leipzig: W. Braumüller, 1913. Pp. xiii, 402.

This well-known text-book, which was for a time out of print, now appears in a new and enlarged edition, and adorned with an excellent portrait of the author. The additions, which amount to over 120 pages, are chiefly in the departments of sociology, pedagogy, and æsthetics, and will doubtless enhance the usefulness and popularity of the work.

F. C. S. Schiller.

Die Anfänge der griechischen Philosophie. Von John Burnet, übersetzt von Else Schenkl. Leipzig and Berlin: Teubner. Pp. v, 343.

This is a translation of the second edition of Burnet's *Early Greek Philosophy* by Mme. Schenkl, the wife of the well-known editor of Epictetus, who has given her the benefit of his advice in all technical matters. The translation reaches a very high level of excellence and compares very favourably with most English translations of German works on similar subjects. It is dedicated to the Eighty-fifth Congress of German Scientific Investigators and Physicians held at Vienna last September. The translator has some amusing observations on the difference between English and German style in her Preface.

Disegno Storico delle Dottrine Pedagogiche. Da GIOVANNI MARCHESINI. Roma: *Athenaeum*, Societa Editrice Romana. Pp. 260.

Prof. Marchesini of Padua is a fertile and suggestive writer on philosophical and educational subjects.

His *Le Finzioni dell' anima*, and his *Pedagogia Generale* were recently reviewed in MIND, and the volume before us, though little more than a bird's-eye view of a great field, shows synthetic grasp and insight.

It is an historical sketch in outline of the development of Pedagogical doctrines from their beginning in Classical times, and of the ideals which they have generated. As the author shows, the history of Pedagogy is connected with, but must not be confused with the history of Education. Pedagogy is the Science, Education is the Art. The former deals with theory, the latter with practice. Practice in all spheres of activity often lags very far in the rear of theory, and in nothing is this more true than in Education. Many of the ideas which were theoretically established by the thinkers of ancient Greece are only now beginning to be systematically carried out in practical systems.

Our author therefore deliberately refrains from discussing the varieties and gradual modifications of scholastic institutions, on the ground that the history of Pedagogy ought to be kept distinct from the history of Education.

The book is divided into two parts. The former with a broad brush paints the story of the growth of educational theory in three panels. The first covers the whole movement from the time of Plato to the beginning of the eighteenth century. When we mention that only two pages are allotted to Plato, and the same to Aristotle, it will be clear that there is not much space for detail. The second section or panel is called the "Golden Age of Pedagogy"—and therein is set forth the quickening of Pedagogical thought by the ideas of Rousseau and Pestalozzi. The third section confines itself to the characteristic doctrines of the nineteenth century as represented by their exponents, Froebel, Herbart, Ardigo.

Part II. contains a review of the principal problems which have led to discussion in general Pedagogy, such as the scientific criterion, the end of education, formalism, the intuitive method, discipline, the process of instruction, etc. This second part is intended on the one hand to complete from a more special point of view the general exposition of the doctrines, and on the other hand to collect synthetically the informative criteria.

Prof. Marchesini has a peculiar fondness for appendices. There is a long one at the end of each section of the book. While it may be admitted that these appendices contain much valuable matter, and that an author is justified in selecting for his purpose from the material at his disposal, it would, in our opinion, have been better if much of the matter thus served up in appendix form had been fully digested and worked into the actual structure of the book.

JOHN EDGAR.

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VIII.—PHILOSOPHICAL PERIODICALS.

Philosophical Review. Vol. xxii., No. 2. **F. Thilly.** 'Romanticism and Rationalism.' [Argues that "there is hardly a type of Romantic philosophy clamouring for recognition to-day that has not its counterpart in the anti-intellectualistic movements of the period inaugurated by Kant," and that "there is nothing whatever in the nature of the human mind . . . to hinder it from doing justice to the dynamic . . . phase of experience".] **J. E. Creighton.** 'The Copernican Revolution in Philosophy.' [With Kant, philosophy becomes essentially criticism of the categories; philosophy constructs through the process of criticsm; Kant's doctrine of the categories thus confirms and completes Leibniz' dynamic view of reality. The 'new realism' employs a precritical logic, and fails to appreciate the history of philosophy; its instinct is, however, sounder than its principles and method.] **H. M. Kallen.** 'Radical Empiricism and the Philosophic Tradition.' [The philosophical systems are guilty of hypostasis of the instrument; pragmatism enumerates them over a common denominator. But pragmatism, as method, finally gets lost in prospective ultimacies; it remains for radical empiricism to emphasise the *terminus a quo*. Radical empiricism is metaphysics expressible in attitude, not in system.] **E. G. Spaulding.** 'Proceedings of the American Philosophical Association; the 12th Annual Meeting, Columbia University, Decr. 26-28, 1912.' Discussion. **W. B. Pitkin.** 'The Neo-realist and the Man in the Street.' [Reply to Calkins. We must distinguish between the evidential value of a common-sense statement, and its importance as fixing the burden of proof; and again between common-sense ideas and common-sense behaviour: we may draw inferences from conduct irrespectively of what the actors think.] Reviews of Books. Notices of New Books. Summaries of Articles. Notes. **T. de Laguna.** 'The Importance of the History of Philosophy for Systematic Philosophy.'

Psychological Review. Vol. xx., No. 3. **R. M. Ogden.** 'The Relation of Psychology to Philosophy and Education.' [The new psychology of thought, in its bearing upon epistemology and the process of learning, illustrates the fact that psychology is essentially a propædeutic to philosophy and education.] **E. G. Martin., E. L. Porter, L. B. Nice.** 'The Sensory Threshold for Faradic Stimulation in Man.' [The electrical sensitivity of the human skin (mental electrodes) is $\frac{1}{2}$ that of frog's muscle, and $\frac{1}{10}$ to $\frac{1}{20}$ that of naked nerve. Mental electrodes affect cutaneous, liquid electrodes the deeper-lying receptors.] **L. W. Kline, W. A. Owens.** 'Preliminary Report of a Study in the Learning Process Involving Feeling Tone, Transference and Interference.' [Distribution of playing-cards to pigeon-holes under varying conditions. There are five stages in learning, causally related: learning of labels, of compartments, of the run of the cards; synthetising runs and compartments and symbolising them in various modes; emergence of sensorimotor and automatic processes.] **E. Rowland.** 'Report of Experiments at the State Reformatory for Women at Bedford, New York' [Nine

classified tests of thirty-five delinquent women gave objective proof in a relatively short time that eleven were subnormal.] **K. Dunlap.** 'Apparatus for Association Timing.' [Arrangement of Ewald chronoscope, electric fork, voice keys, double relay, and master switch.] **M. Luckiesh.** 'A Colour-Triangle for Lecture Purposes.' [Triangular box with diffusing glass and three lamps.]

JOURNAL OF PHILOSOPHY, PSYCHOLOGY AND SCIENTIFIC METHODS.—x., 10. • **C. J. Keyser.** 'Concerning Multiple Interpretations of Postulate Systems and the "Existence" of Hyperspace.' [Distinguishes clearly between sensible and conceptual 'space,' showing that the former is mathematically discontinuous and irrational, because the axiom that equals of equals are equal does not hold of it, and hence unfit to be the object of geometry. A conceptual space has therefore to be substituted for it; but once this is done any hyperspace is logically on a par with ordinary (Euclidean) geometrical space. The sole difference is that the latter is 'imitated' by our sensible space, whereas the hyperspaces are not.] **J. Dewey.** 'The Problem of Values.' [Comments on the question propounded for the meeting of the Philosophical Association, and suggests additions.] **H. L. Hollingworth.** 'The N.Y. Branch of the American Psychological Association.' x., 11. **A. H. Lloyd.** 'Conformity, Consistency and Truth: A Sociological Study.' [Argues that the two former were the outcome of mediæval dualism, and that the pragmatic test of 'working' develops out of them when institutions become instruments.] **W. F. Cooley.** 'Can Science Speak the Decisive Word in Theology?' [Maintains the negative against Leuba.] x., 12. **W. B. Pitkin.** 'Time and the Percept.' [Endeavours to meet the objection to realism arising out of the fact that the percept is always seen in the light of past experience and selected in accordance with expectation and desires about the future, and consequently cannot be 'real' in the realistic sense, *i.e.* wholly independent of the perceiver.] **H. M. Wright.** 'The Thirteenth Annual Meeting of the Western Philosophical Association.' x., 13. **G. C. Cox.** 'The Case Method in the Study and Teaching of Ethics.' [Finding that the study of ethics does not teach men to be ethical, the author has adopted the 'case' method from the teaching of law. He starts from actual conduct and the judgments socially passed thereon, and disclaims casuistry, which presupposes an already established moral law. The method appears to be more difficult, but also more effective, than mere lecturing.] **I. Husik.** 'The Theory of Independence.' [A criticism of R. B. Perry's paper in *The New Realism*, which it charges with either confusion or begging of the question.] x., 14. **W. Fite.** 'The Social Implications of Consciousness.' [Social consciousness and obligation must be *mutual;* "no creature is your brother just because he is one of the human race".] **G. H. Mead.** 'The Social Self.' ["The growth of the self arises out of a partial disintegration—the appearance of the different interests in the forum of reflexion, the reconstruction of the social world, and the consequent appearance of the new self that answers to the new object."] Report on the New York Branch of the American Psychological Association. x., 15. **W. B. Pitkin.** 'The Empirical Status of Geometrical Entities.' [Attacks the 'error' of "supposing that the concepts of pure geometry cannot be found in the realm of percepts."] **R. M. Ogden.** 'Content *vs.* "Kundgabe" in Introspection.' [Experiments to test the existence of 'imageless thought' by 'introspecting the meanings of words' and studying 'the consciousness evoked by aphorisms and simple logical problems.'] **J. H. Leuba.** 'Can Science Speak the Decisive Word in Theology? A Rejoinder' [to Cooley in x., 11]. x., 16.

J. B. Watson. 'Image and Affection in Behaviour.' [The belief in mental images and in affective processes are the chief obstacles to a radically 'behaviourist' treatment of psychology. Hence where there is neither immediate nor delayed 'overt response' the so-called 'thought processes' must be conceived as 'implicit behaviour,' consisting of 'nothing but word-movements' in the larynx. As for 'affection,' Freud has made good his main point about the sex reference of all behaviour: hence pleasantness and unpleasantness may be correlated with the tumescence and shr[illegible]cage of the sex-organs. Thus self-observation and introspective reports may be eliminated from psychology.] **C. I. Lewis.** 'A New Algebra of Implications and Some Consequences' [A sequel to the author's criticisms of Russell's system. Points out that the algebra of implications ceases, in a sense, to be pure and becomes applied when its propositions are used in proving anything. Hence, it is 'peculiarly difficult' to separate formal consistency and material truth, and 'false proofs' are generated, as also "theorems which have no application to our ordinary processes of reasoning and seem absurd to common sense". He therefore proposes a system of "strict implication" in which "propositions and propositional functions obey the same laws" and states its postulates.] **G. S. Fullerton.** '"Everybody's World" and the Will to Believe.' [Reply to Adams in x., 7. Suggests that those philosophers who "provide unequivocally for the conservation of human interest and values," whether labelled idealists, realists or pragmatists, should join forces against those who have no room for it.] x., 17. **R. B. Perry.** 'Some Disputed Points in Neo-Realism.' [Replies to criticisms by Lovejoy, Pratt and McGilvary.] **H. A. Overstreet.** 'Prof. Cox's "Case Method" in Ethics' [*cf.* x., 13; asks for more elucidation]. This number contains also a classified, but "far from exhaustive," bibliography on the conception of Value. x., 18. **G. D. Walcott.** 'Epistemology from the Angle of Physiological Psychology.' [A sketch of a system.] **T. R. Powell.** 'The Study of Moral Judgment by the Case Method.' [A valuable exposition of the nature of legal reasoning, apparently by a jurist, showing the fundamental identity of legal and moral decisions.] **H. T. Costello.** 'A Neo-Realistic Theory of Analysis.' [A criticism of Spaulding's essay in *The New Realism*, urging that Bergson has not been confuted by the realist's 'analysis,' because it assumes a mathematical 'Imitation of space but not space itself'.] x., 19. **H. L. Hollingworth.** 'A New Experiment in the Psychology of Perception' [to illustrate the process of interpretation. "To suggest activity pictorially the moving object must always be caught at an actual point of rest; to suggest pose or arrest it must be caught at a point of actual motion."] **M. R. Cohen.** 'The Supposed Contradiction in the Diversity of Secondary Qualities—A Reply' [to Lovejoy in x., 8]. **W. E. Hocking.** 'Conference on the Relation of Law to Social Ends.' [A full report.] x., 20. **W. T. Bush.** 'The Empiricism of James.' [An urbane and sympathetic review of *Essays in Radical Empiricism*.] **A. W. Moore.** 'The Aviary Theory of Truth and Error.' [Shows that W. P. Montague in *The New Realism* has not extricated himself from Plato's perplexities in the *Theætetus*, and suggests as the reason that "a mere actionless object 'as such' no more exists than does a contentless 'act' or 'process' of belief 'as such,'" which appears to be the correct pragmatist comment on this controversy.] **W. Fite.** 'The Theory of Independence Once More.' [Another pragmatist criticism of neo-realism, which accuses R. B. Perry's account of independence of "ignoring the case of personal independence," and suggests that it contains the real clue to the question. The indictment of the conventional epistemology as the history of the knower, who had a chair but apparently no friends, is very sensible as well as witty.]

British Journal of Psychology. Vol. v., Pt. 3. **Henry Rutgers Marshall.** 'The Relation of Instinct and Intelligence.' [Continues discussion of instinct in symposium by Wildon Carr, McDougall, LLoyd Morgan, Myers and Stout, reported in *British Journal of Psychology*, vol. iii. Objective view first considered, organisms being regarded as including cells and groups of cells each having their own special activities. From this point of view reflexes are instinct actions of minor systems within the larger system, and resemble the "ideal of an instinct action" more closely than do any of the instinct actions of the whole organism. Primarily each cell or cell group acts for the sake of its own well-being; but for the sake of the aggregate such cell-actions must be co-ordinated to serve the life purpose of the whole organism. As organisms become more complicated such co-ordinated instinct actions naturally become more difficult. Even the single cells may be modified by their own reactions and so their subsequent action may be modified. Here is something analogous to the learning by experience of more complex organisms. Reflexes which we think of usually as unconscious may occasionally give rise to conscious processes very similar to ordinary "instinct feelings"; at other times they may be accompanied by consciousness which does not enter our "field of awareness". Arguments given showing difficulty of separating "intelligence experience" from "instinct feeling". Probably they involve only one process, the "psychic unit" being instinct feeling, as the biological unit is instinct action, the "experienced efficient self" being "the most fundamental of all highly complex instinct feelings". Points of agreement and disagreement with previously mentioned writers are discussed, the author regarding his theory as agreeing closely with that of Myers in the refusal to regard instinct as a distinctive form of capacity.] **A. M. Hocart.** 'The Psychological Interpretation of Language.' [Current psychological interpretation of language of savages criticised; use of various words where we have only one is not a sign of lack of "incapacity for clearly apprehending difference in identity." but rather of a greater interest in more detailed differentiation. Necessity for studying the "social context" of words emphasised. Examples given from Fijian tongue to show that, by argument similar to the usual psychological interpretation of language, Fijian could be shown to be the higher language, and ourselves less capable than the Fijians in apprehending difference in identity; wide and vague concepts, indeed, are the particular characteristic of savage tongues. Possibility suggested of historical development containing explanation of many synonyms, etc., as is the case with the language of more civilised peoples.] **R. Latta.** 'The Relation of Mind and Body.' [Discussion of the validity of the methods involved in the various theories. Unjustifiable to carry over mechanical theory devised for supposed complete system of the material universe, to the sphere of the mental—another supposed self-complete and self-explaining system. Such theorists commit absurdity of first excluding the psychical from the sphere of mechanical law, because otherwise the mechanical hypothesis would not work, and then of actually applying this mechanical hypothesis to explain "the disturbing and refractory psychical". Inadequacy of mechanical hypothesis to explain even the organic material world is recognised by vitalism, to which animism seems methodologically allied. But both these theories seem to err in their external conception of final cause. The entelechy of vitalism seems to be a principle which supervenes upon the mechanical principle, while animism requires an endless succession of miracles. The mechanical hypothesis must admit an immanent teleology, and this is a feature of both the physical and psychical systems. Hence there seems "no further reason for main-

taining the Cartesian doctrine of an absolute or a miraculously bridged gulf between the physical and the mental worlds".] **Henry J. Watt.** 'The Relation of Mind and Body.' [Solution of problem presupposes satisfactory knowledge of each of the two correlated fields. Much more systematic analysis and arrangement of psychic states needed first; danger emphasised of applying physical notions in such mental analysis. Later we may attempt to suggest possible physiological processes as correlatives for every distinguishable aspect of the mental elements. A correct classification of attributes of sensations would prove a key to further understanding of physiology of the senses. McDougall's arguments against parallelism, drawn from facts of binocular vision, criticised, and a law of psychical fusion suggested—"the law of the conservation of psychical identity". Further consideration of binocular vision leads to conclusion that it is still possible to correlate "the complex psychical unity of binocular vision, fused according to particular laws of psychical fusion, with the complex physical unity of binocular stimulation and response, co-ordinated according to the particular laws of neural co-ordination."] **C. W. Valentine.** 'The Effect of Astigmatism on the Horizontal-Vertical Illusion, and a Suggested Theory of the Illusion.' [Illusion unaffected by astigmatism not exceeding 1.5D, unless other optical defects also cause blurring of the figure. With some subjects a marked difference (which could not be atributed to astigmatism) occurred between amount of illusion for one eye and that for the other eye. This presumably due to a physiological factor—the same probably as causes an object to appear of different sizes according to the part of the periphery of the retina on which its image falls. It is suggested thatthis physiological factor may be the sole cause of the illusion. General effect of practice very unusual, *viz.*: the illusion *increases*, owing to the adoption of a more "mechanical" attitude on the part of the subject, in which he yields himself more completely to the immediate sensory impressions, thus losing the effects of training in drawing, etc., which have partially corrected the illusion.] **W. G. Smith, D. Kennedy-Fraser, and William Nicholson.** 'The Influence of Margins on the Process of Bisection, Additional Experiments with Observations on the Affective Character of the Determination'. [General results of previous investigation confirmed, but illusion due to margin practically disappeared when margin was approximately half the length of the bisected line. These features apparently connected with mode of presentation in this investigation. Different forms of judgment had different definite affective values; "far" judgments (*i.e.* when bisecting mark was judged far from centre of line) rarely unpleasant, "near" judgments often unpleasant. "Doubtful" judgments characteristically unpleasant, but "equal" judgments pleasant.]

The International Journal of Ethics. Vol. xxiii., No. 3. April, 1913. **Arthur O. Lovejoy.** 'The Practical Tendencies of Bergsonism.' [The possibility of applying Bergson's philosophy in the realm of practice depends on the assumption that the 'return to the immediate' gives both supremely illuminating insight and the supremely desirable experience. To appreciate this experience it is necessary to turn away from (*a*) logical thought, (*b*) action, (*c*) social life. All these are tainted by intellect, and only by repudiating intellect is intuition possible. Of the content of intuiton Bergson gives six irreconcilable descriptions. (i.) It is the absolute Unity of the mystics.' (ii.) It is absolute change, *flux posé sur flux*. (iii.) It is change of a definite and cumulative kind. (iv.) It is revealed in the evolutionary instinct of maternal devotion. Views (v.) and (vi.) will be

considered in the sequel. From each of these views practical consequences follow.] **Walter F. Willcox.** 'A Statistician's Idea of Progress.' [Progress is a subjective term which implies change towards some end. Ultimate ends are incapable of statistical measurement. But statistics measure subordinate characteristics, which are correlated with the ultimate ends. If such characteristics be examined as size of population, length of life, the condition of education religion and industry, it will be found that some results point to progress, others to retrogression. There is no common denominator of these characteristics, and therefore statistics fail to answer its question.] **John M. Mecklin.** 'The Problem of Christian Ethics.' [If the moral teaching of Jesus contemplated nothing beyond the range of contemporary Jewish apocalyptic ideas, it cannot be universally valid. But the problem concerns not so much the moral teaching of Jesus as his life, in which the moral ideal it concretely manifested.] **M. E. Robinson.** 'The Sociological Era.' [In this era it will be recognised that questions of right and wrong are matters of point of view.] **Ezra B. Crooks.** 'Is it Must or Ought?' [Ethics involves an ought, and finds the ground of obligation in 'personalised will'. Personality involves three original elements, self-awareness, imagination and effective volition. The ought belongs to the imagination, which gives a presentation of the self as different from its actuality at any moment.] Book Reviews. List of Books Received.

Revue de Philosophie. 1er Septembre, 1913. **M. Gossard.** 'The Metaphysical Sense of the Law of the Conservation of Energy.' [Physics study facts as they are found to be; Metaphysics as they must be. An expression in scholastic terms of the doctrine of Energy.] **A. Véronnet.** 'Cosmogonic Hypotheses.' [Laplace's nebula, excessively hot and rarefied, must have cooled too soon. Other objections to Laplace, inviting a return to the previous ideas of Kant.] **A. Diès.** 'A New Commentary on Aristotle.' [Two new works from the University of Louvain: Aristotle, *Metaphysics*, I., translation and commentary by Gaston Colle (Alcan, Paris, 5 francs); Introduction to Aristotelian Physics by A. Mansion.] **J. le Rohellec.** 'Some Manuals of Philosophy.' [Authors, Lahr, Sortais, Lévesque, Lenoble, Roustan.] 1er Octobre, 1913. **A. D. Sertillanges.** 'Marriage as a Natural Institution.' [The life of the individual is complete in marriage. Marriage is the feeding of the race. Supernaturally, it is the making up of the number of the elect.] **A. Véronnet.** 'Cosmogonic Hypotheses.' [Detail of the theories of Faye, du Ligondès, Belot, See, G. H. Darwin. Faye postulates a nebula, dark and cold, exceedingly rarefied, with *vortices*. Belot looks to the compenetration of two distinct nebulas. See makes the planets external bodies, captured by the solar nebula. Darwin relies on tides. For any such theory, the first thing is its possibility, to be ruled by the mathematician; then its actuality, to be ruled by the physicist.] **Dr. M. d'Halluin.** 'The Problem of Death.' [Apparent death. Relative death. Absolute death. Only the third is hopeless. In the second, which dates from the cessation of the heart, isolated organs may be revived artificially, and sometimes the whole organism.] **R. Marchal.** 'Two New Studies in Epistemology.' [Refers to the *Criteriologia* of Père Jeannière and articles on it in the *Revue de Philosophie* and *Études Religieuses* by Père Genis. Turns on these words of St. Augustine, *de lib. arb.* ii., 25: 'Though I hold these things with unshaken faith, still, as I do not yet hold them by knowledge, let us so search as though all were uncertain.'] 1er Novembre, 1913. **F. Bouvier.** 'Is Totemism a Religion?' [Anything may be made out to be anything else by aid of loose

definitions. Totemism and Religion are often loosely defined. But, strictly speaking, totemism is no religion, as is proved by examination of the peoples among whom it obtains. Against M. Durkheim, *Le système totemique en Australie.*] **Dr. M. d'Halluin.** 'The Problem of Death.' [The stoppage of the heart is not so much a diagnosis as a prognostic of death; the subject cannot come to himself again, unaided, and will die absolutely as soon as putrefaction sets in. But heart *massage* may bring him round: seventeen human beings have thus permanently recovered.] **M. Gossard.** 'The Metaphysical Sense of the Law of Conservation of Energy.' [Application of these scholastic adages, *Motus est in mobili, Actus motivi non est alius ab actu mobilis, Agens agit simile sibi, Movens movendo non movetur.*] 1er Decembre, 1913. **P. Duhem.** 'Time and Motion According to the Schoolmen.' [Is Motion a reality essentially successive, or is it the flux of a permanent reality? Is its essence transition, or is it a continuous series of states of repose? Two conflicting uses of the terms *fluxus formæ* and *forma fluens*. Opinions of Scotus and Scotists.] **A. Véronnet.** 'Cosmogonic Hypotheses: Evolution of the Sun.' [Heat of the Sun maintained by shrinkage.] **M. Sérol.** 'Religious Value of the Pragmatism of William James.' [From a pure pragmatist standpoint, the notion of a faith falling short of objective certainty, and of a God falling short of infinite power and perfection, must work disastrously for Religion.]

Archives de Psychologie. Tome xiii., No. 2. **O. Decroly et J. Degand.** 'Observations relatives au développement de la notion du temps chez une petite fille de la naissance à 5 ans ½.' [Detail of observations, with table. Ideas of succession are earlier than those of duration; even at five and a half years, the latter are but vague and inexactly expressed.] **V. Demole.** 'Un cas de conviction spontanée.' [A sudden conviction, on waking, that a patient is dead is explained by a subconscious confusion, due to an accumulation of resemblances and favoured by a hazy state of consciousness.] Recueil de Faits: Documents et Discussions. **T. Flournoy.** 'A propos d'un cas de conviction spontanée.' [Points out that the patient had, in fact, died; and that room is therefore left for 'occult' factors.] **Burnand.** 'Un cas d'hallucination véridique.' [Observation by a young woman of an extremely neuropathic type.] **M. Dunant.** 'Un rêve mystique infantile.' ['Religious' dream experienced in the twentieth month, at the crisis (favourable) of pneumonia.] **R. Weber.** 'Reverie et Images.' [The biological status of the two senses explains why we dream at night in terms of sight, and by day in terms of hearing.] **E. Toulouse.** 'A propos de l'étude du génie.' [Defence of the author's work on Poincaré.] Bibliographie. Notes diverses.

Archiv f. d. gesamte Psychologie. Bd. xxiv., Heft 4. **A. Messer.** 'Über den Begriff des "Aktes".' [Detailed criticism of v. d. Pfordten's *Psychologie des Geistes*, and defence of the author's (*i.e.* essentially of Husserl's) definition of 'act'.] **W. Wirth.** 'Zur erkenntnistheoretischen und mathematischen Begründung der Massmethoden für die Unterschiedsschwelle, ii.' [Critical discussion of Urban's treatment of the method of just noticeable differences, and of Lipps's evaluation of the equal cases. See Mind, xxi., 298.] **J. Lorenz.** 'Unterschiedsschwellen im Sehfelde bei wechselnder Aufmerksamkeitsverteilung.' [Tachistoscopic exposure of four pairs of vertical lines, or of four heterogeneous stimuli (lines, dots, etc.), with determination of the differential limen for varying distribution of attention (one pair, two pairs, etc.). Judgment depends on distribution of attention, and especially on associative

influences due to neighbouring stimuli; these influences are greater, the more homogeneous the stimuli. The measure of precision is a better index than the limen; it seems, indeed, to be a general law that consciousness tends more and more to a simple determination of differences, the greater the demands made upon it by the task set. Accuracy of apprehension decreases geometrically as distribution of attention increases arithmetically; and as a certain lower limit of accuracy is equivalent to no-judgment, the author's method gives a means of determining the Wundtian constant, of 'range of apperception'. The range is less with homogeneous, greater with heterogeneous stimuli. With the former, order of judgment is important; the elements judged later are judged less accurately; with the latter, the individual 'claim' of the elements to a judgment is the main factor in accuracy of apprehension.] **K. Dunlap.** 'Die Wirkung gleichzeitiger Reizung von zentralen und exzentrischen Netzhautstellen.' [It has been found (Dvorak, Bethe) that simultaneous stimulation of central and peripheral retinal areas gives the perception of succession; and this has been explained in terms of attention. The author refers the illusion to eye-movement: let fixation be maintained, and the stimuli are judged simultaneous; the result appears under varying conditions of size and locality (one eye, both eyes, peripheral areas of same eye) of stimuli. Mach's phenomenon may intervene, but only if the stimulus is from the R-Y region; the author explains this fact in terms of retinal sensitivity.] Literaturbericht. Einzelbesprechung. [Mantey on Sleight's Memory and Formal Training.] Referate. Zeitschriftenschau. II. Deutscher Kongress für Jugendbildung und Jugendkunde. Bd. xxv., Heft 1 und 2. **V. Haecker.** 'Über Lernversuche bei Axolotln.' [Report of experiments made with the Mexican axolotl, extending for eight individuals over a period of more than seven months, and for one over two and a half years. All the animals learned sooner or later to distinguish flesh from fragments of wood, and the distinction once learned was fairly permanent. There were, however, marked individual differences (not correlated with sex or race) as regards rate of learning (number of mistakes per day during the period of learning), speed of learning (duration of period of learning), progress of learning (uniformity or variability), and persistence of learning (number of mistakes after interval). In general, the younger animals learned with much more difficulty than the older. The expression of the 'conflict of motives,' hunger *vs.* effect of experience, is extraordinarily varied. Biologically, the individual differences may be of selective value.] **P. Schilder.** 'Über autokinetische Empfindungen.' [An experimental study of the apparent wavy and creeping movements observable on fixation of solid and interrupted straight lines, discs, spots, etc., drawn in white on a black ground; determination of the influence of point of fixation, length and breadth of figure, retinal fatigue, illumination, adaptation and accommodation, distance, tissue paper; observations on coloured lines; observations of after-images. The wave-phenomenon can be ascribed neither to eye-movement nor, indirectly, to after-images of movement aroused by eye-movement; the changes of form, which constitute its core and centre, are due to retinal processes. (Why these processes should be bound up with an impression of movement, which shows sensory vividness, is a further question.) The changes are primarily matters of function: the retinal image energises a 'surface of action' (Exner's circle of action); the arrangement and grouping of the movements must then be anatomically conditioned.—The author reviews the work of previous investigators, and discusses the relation of the wave-phenomenon to the oscillation and periodic disappearance of points, to the Purkinje-Helmholtz phenomenon, and to the alleged moving after-

images of resting objects. He thinks that the phenomenon may be a safeguard against overlong fixation; that it contributes to the uncanniness of the dark; that it plays a part in the æsthetics of painting; and that it bears a relation to Lipp's empathy.] **J. Suter.** 'Die Beziehung zwischen Aufmerksamkeit und Atmung.' [An experimental study of the relation between attention (introspectively controlled) and thoracic and abdominal breathing as recorded by the pneumograph; problems were set upon immediate memory, learning of letters and numbers, mental arithmetic, reading and understanding a text, etc. Under the influence of attention (1) the quotient inspiration/expiration is reduced (expiration is uniformly lengthened, inspiration usually shortened); (2) the waves of inspiration and expiration tend to flatten; and (3) the transitions become sharper. In the lower degrees of attention breathing seems to grow quicker and more shallow; in what is perhaps the optimal state of complete inhibition, the curve approaches a straight line.—Under the conditions of tachistoscopic reading, the expression of attention is crossed by that of excitement and expectation; in general, however, the results given above can be made out. The paper ends with a comparison of the present work with that of Zoneff and Meumann, Kelchner, and recent investigators in the Leipsic laboratory.] **E. Schroebler.** 'Bericht über den IV. internationalen Kongress für Kunstunterricht, Zeichnen und angewandte Kunst, Dresden, im August, 1912.' **O. von der Pfordten.** 'Über den Begriff des "Aktes".' **A. Messer.** 'Entgegnung auf das Vorstehende.' [Apropos of Messer's review of *Psychologie des Geistes.*] Literaturbericht. Sammelreferat. **M. H. Boehm.** 'Untersuchungen zum Wertproblem.' Einzelbesprechung. [F. M. Urban on W. Wirth's *Psychophysik.*] Referate. Zeitschriftenschau. **F. M. Urban.** 'Berichtigung.' Bd. xxv., Heft 3 und 4. **G. Stoerring.** 'Experimentelle Beiträge zur Lehre von den Bewegungs- und Kraftempfindungen.' [The limen of passing flexion is about 1/200°. Judgment of supraliminal movement (passive) does not rest essentially upon rate and duration of the movement. In judgments of active movement, muscular and tendinous sensations play a large part. Over and underestimation are conditioned upon a variety of influences. The differential limen of lifted weights averages 1/21; judgment does not depend upon rate of lift.] **G. Anschuetz.** 'Tendenzen im psychologischen Empirismus der Gegenwart.' [Criticism of Kulpe's *Psychologie und Medizin* and *Bedeutung der modernen Denkpsychologie.*] **W. Poppelreuter.** 'Über die Ordnung des Vorstellungsablaufes, i.' [First two chapters (140 pp.) of a book which seeks to rehabilitate the association-psychology upon a new basis. As the experiments of the Müller school involve will and thought, they are unsuited to the discovery of the elementary laws of association and reproduction. The author operates with the 'secondary experience' or idea, which is produced by every sensation and forms the basis of association; and with the 'total idea' or constellation which results, as secondary experience, from any manifold, simultaneous or successive, of primary elements. The type of reproduction is thus a redintegration of the secondary experience. He reports many experiments, with meaningless and meaningful material; reformulates several elementary laws; criticises especially the motor factors in the work of Müller and Pilzecker; rejects the perseverative tendency; and comes to close quarters with Wundt's theory of apperception.] **R. Feilgenhauer.** 'Untersuchungen über die Geschwindigkeit der Aufmerksamkeitswanderung.' [The least shift of active attention averages 300σ. This figure holds for visual, auditory and tactual stimuli; for visual stimuli in different positions and directions, and viewed under different angles; for pairs and for larger manifolds of stimuli; and for disparate stimuli: only under

special circumstances does vision bring with it a slight lengthening. The movement within a sense-department is a glide; with disparate stimuli it becomes an unmediated jump.] Literaturbericht. **E. Meumann.** 'Sammelreferat über die'Literatur der Jugendkunde.' Bd. xxvi. Heft 1 und 2. **H. Hofmann.** 'Untersuchungen über den Empfindungsbegriff.' [After considering the pure sensation (Ebbinghaus), the primative sensation (Hillebrand) and the simple sensation (Wundt), the author attempts to analyse, by Husserl's method, the visual object (*Sehding*) and visual space. Visual sensitivity rises by degrees from the datum of sensory experience (*Erlebnis*), through intuition (*Anschauung*), to the objective manifestation (*Dingerscheinung*) and so to the object itself; the series takes shape under various modes of 'constitution'. Space is a visual quality, like colour; and visual space is capable of the sort of analysis which has been carried through for the visual object.] **T. Kehr.** 'Bergson und das Problem von Zeit und Dauer.' [Bergson's view of time is no more satisfactory than Newton's. Temporally, there is nothing beyond a Now; what is called the flight of time is really the progress of a movement, a shifting or changing within this Now.] **W. Moede.** 'Die psychische Kausalität und ihre Gegner.' [Discusses briefly the doctrine of immanent causality (Mill, Wundt) and the analugy of chemistry; the notion of function in the older and the newer psychophysics; and the programme of a descriptive psychology. Until the concepts of cause and function have been completely worked out, on an immanent basis, the method of description is the safest and the most promising.] **P. Homuth.** 'Beitrage zur Kenntnis der Nachbilderscheinungen. i. Längerdauernde Reize: das "Abklingen der Farben." Versuche, Geschichte und Theorie. ii. Kurzdauernde Reize: neue Feststellungen über die Gestaltung des Primär- und Sekundärbildes.' [Record of experiments, with coloured plates. From his first set of experiments the author deduces a compotent-theory, with yellow, blue and purple as fundamental colours.] Literaturbericht. Einzelbesprechungen. [Graeber on Wundt's *Griechische Ethik*, ii.; Wreschner on Stern's *Differentielle Psychologie;* Vierkandt on Danzel's *Anfänge der Schrift.*] Referate. Berichtigungen, Zeitschriftenschau.

Zeitschrift f. Psychologie. Bd. lxiii., Heft 3. **A. Guttmann.** 'Zur Psychophysik des Gesanges.' [To provide a thoroughly scientific treatment of singing, experts in the various modes of approach to its phenomena (musical history, theory, æsthetics; physiology, psychology; professional instruction) must unite for mutual criticism and supplementation. Consider, *e.g.*, the subject of voice-management: Rutz's views have been adversely criticised by physicists and physiologists; Krueger, a psychologist, comes to their aid with his theory of concomitant movements; but the professional teacher can show that the theory is pushed too far. Or consider the vexed question of registers: physiology and practical teaching declare that there is more than one register, while yet the auditory perception of a trained voice may find an unbroken tonality. Even in such seemingly physiological matters as experiments on purity of intonation, knowledge of the history and psychology of music helps us to interpret results.] **L. Klages.** 'Begriff und Tatbestand der Handschrift.' [Drawing is concerned with figures; writing is a mode of expression, in which vision plays but a secondary part. Writing is concerned with the meaning of symbols, and therefore treats its forms freely, and seeks to trace them with a single movement of the pen. Writing, further, as an organic activity, shows always a personal peculiarity; it sensibly transgresses rules while it aims to obey them; yet its uniqueness keeps variation within definite limits. It reaches its optimum as an

automatic process, during which the writer is wholly occupied with the matter which he desires to communicate. On the basis of these general ideas, the author draws up a classificatory table of handwritings, under the main heads of artificial and natural writing; the latter is handwriting proper.] Literaturbericht.

Rivista Filosofica. Anno iv., Fasc. 4, July-October, 1912. **Alberto Calcagno.** 'Henri Bergson e la cultura contemporaneo.' [The paradoxical success of Bergson's philosophy is due to its apparent success in providing a new synthesis of nature and spirit, so long and so unhappily separated since their original union in Greek thought.] **P. Carabellese.** 'Il fatto educativo.' [The meaning of education lies in the effort—not necessarily successful—of the teachers to train the pupil's faculties towards the apparently spontaneous realisation of a purpose known to the teacher but not to the pupil.] **Achille Bertini Calosse.** 'L'autonomia scientifica della Storia dell'arte.' [An appeal for the organisation of the history of art as a distinct branch of philosophical study.] **C. Ranzoli.** 'La concezione del caso come ignoranza.' [Chance has hitherto been generally interpreted as an expression of our ignorance of the causes, mechanical or teleological, by which events are necessarily determined. The writer reserves for a future occasion the exposition of theories assigning it a different value, but one which, nevertheless, is compatible with determinism.] **Vittorio Neppi.** 'La guerra di fronte alla ragione.' [War is to be condemned not less absolutely than violence in private life; and the arguments advanced by Prof. Del Vecchio for the legitimacy of wars undertaken to abolish an unjust state of things are invalid. Even from the utilitarian point of view peaceful means are more desirable. The writer is careful to explain that his essay was written before the Tripolitan expedition, 'the justice of which would require a particular investigation of very little importance in relation to the demonstration of his thesis'.] **A. Mieli.** 'Storia delle scienze.' [A review of some recent contributions to the history of science among the Chinese, Hindoos and Arabs.] Recensioni e Cenni. Fasc. 5. November-December, 1912. **Roberto Ardigo.** 'Le forme ascendenti della realtà come cosa e come azione e i diritti veri dello spirito.' [In this article the venerable chief of Italian Positivism celebrates his eighty-fifth birthday by proclaiming once more the evolution of the human mind, without the intervention of any new spiritual principle, from the primal undifferentiated substance in which its promise and potency were present from the beginning.] **A. Aliotta.** 'I gradi della libertà morale.' [Moral liberty develops *pari passu* with reason and knowledge, and is the more perfect the more fully we foresee and reckon on the consequences of our actions.] **Balbino Giuliano.** 'Il Pensiero e l'Assoluto.' [According to the acute criticism of this writer, the ultimate reality or God of Varisco, being arrived at by abstraction from individual differences is equivalent to zero. His own solution, which is not very clearly expressed, seems to be that God as noumenon reaches consciousness under the form of phenomenal selves.] **Benvenuto Donati.** 'Il valore della guerra e la filosofia di Eraclito.' [According to this writer 'Heracleitus drew his best inspiration from Italian thought'. The reference is to Pythagoras, who was no more an Italian than Signor Donati would become an Arab by settling in Tripoli. And Heracleitus, so far from being a disciple of Pythagoras, refers to him by name with scathing contempt.] **Franz Weiss.** 'Note critiche alla "Filosofia dello Spirito" di Benedetto Croce.' [According to Weiss Croce, while professing to have perfected the philosophy of Hegel, entirely misunderstands and perverts it.] Recensioni e Cenni.

"Scientia." Rivista di Scienza. Vol. xiii., No. 3, May, 1913. **B. Russell.** 'On the Notion of Cause.' [The law of causality, as usually stated by philosophers, is false, and is not employed in science. Scientific laws, instead of stating that one event A is always followed by another event B, state functional relations between certain events at certain times, (*cf.* Russell's *Principles of Mathematics*, Cambridge, 1903, pp. 447-449). These events are called 'determinants,' and the relations are between such events and other events at earlier or later times or at the same time. No *à priori* category was found to be involved. A system with one set of determinants may very likely have other sets of a quite different kind, and, for example, a mechanically determined system may also be teleologically or volitionally determined. When discussing the problem of free will, the reasons for supposing volitions to be determined are found to be strong but not conclusive. Even if volitions are mechanically determined, that is no reason for denying them in the sense revealed by introspection, or for supposing that mechanical events are not determined by volitions. "The problem of free will *versus* determinism is therefore, if we are right, mainly illusory, but in part not yet capable of being decisively solved."] **E. de Martonne.** 'Le Climat facteur du Relief.' [The idea that the relief in which the soil is put is explained by geology has become almost commonplace. The relief depends on the climate at least as much as on the sub-soil.] **F. Soddy.** 'The periodic law from the standpoint of radio-activity.' [In 1913 a very great generalisation has been made with regard to the position in the periodic classification occupied by the 34 radio-elements now recognised. This advance sheds a flood of new light on the nature of the periodic law, and already more than half answers the riddle underlying it.] **A. Prenant.** 'Les thèories physiques de la mitose.' [An account of the physical, as opposed to the vitalistic, explanation of cellular division. The conclusion is that none of the physical theories of mitosis escapes some reproach or other.] **F. Oppenheimer.** 'Wert und Mehrwert. 2. Teil: Kritik der Marx'schen Theorie des Mehrwertes.' **G. Cardinali.** 'Le ripercussioni dell'imperialismo sulla vita interna di Roma.' [All the historians of Rome are one-sided. This is an essay towards the facilitating of the acquisition of a distinct vision of the essential values and characteristics of the period of the Roman empire.] Critical note. **V. Cornetz.** 'Sur l'orientation chez la fourmi'. [Reply to H. Piéron's article in *Scientia* for 1912.] Book Reviews. General Reviews. **M. Gortani.** 'Progrès récents de gèodynamique extérieure.' Review of Reviews. Chronicle. Vol. xiv., No. 1, July, 1913. **E. E. Fournier d'Albe.** 'Interstellar space.' [Interstellar space may be said to be closely packed with matter, even if we put aside, as certain modern physicists do, the hypothetical ether. 'We have filled interstellar space with quanta of light. We have added electrons flying with nearly the same velocity, flying past billions of gaseous molecules before they are stopped by them. We see space, even the peaceful interstellar spaces, crowded with molecules, but molecules so small that they must fly a million kilometres before they chance to collide with each other. We have peopled interstellar space with particles of larger dimensions, consisting of millions of molecules each, too light to be attracted by the mass of the sun against the pressure of the sun's light. Through the solar system we have sown a countless number of poised particles, small material aggregates which are the only free citizens of the system, in that they are balanced between gravitation and the pressure of light, and need not fly in orbits like their giant companions, the planets. Then we have the smaller planets, the lighter aggregates of matter which we call comets and meteoric swarms. Does this not suffice to deliver us from the *horror vacui*?' It is rather amusing to reflect that

the last sentence, as well as the one we proceed to quote, are from the pen of a scientific man: 'The perfectly homogeneous, structureless ether of past philosophies is doomed in any case. It is philosophically unsound, as it makes space absolute instead of relative.'] **S. Günther.** 'Pseudo- und kryptovulkanische Erdbeben.' [R. Hoernes's classification of earthquakes seems a permanent acquisition of science, but regard must be paid to the intermediate forms.] **A. Findlay.** 'Heterogeneous equilibrium and the phase rule.' [On the nature, scope, and applications of Gibbs's Phase Rule method.] **L. Fredericq.** 'Les moyens de défense physiques et chimiques dans le règne animal.' [Review of the physical and chemical means of defence made use of in the animal kingdom in the struggle for existence.] **E. Rignano.** 'L'evoluzione del ragionamento. 1ª Parte; Dal ragionamento concreto al ragionamento astratto.' [Continuation of his psychological studies. The "nature" of reasoning can only be discovered by a study of human beings. Investigations like these on animals and the evolution of reasoning then follow. The passage from simple intuition to the deductive process of science will be dealt with subsequently.] **G. Cardinali.** 'Roma e la civiltà ellenistica.' [The development of the influence of Greek civilisation on Rome. In this development must be sought the keystone of modern civilisation. *Cf.* the article on imperialism in Rome in the preceding number of *Scientia*.] Critical Note. **A. Mieli.** 'De la légitimité de la linguistique historique.' [Deals with an article by E. Naville in *Scientia* for March, 1913.] Book Reviews. General Review. **F. W. Henkel.** 'L'habitabilité des planètes.' Review of Reviews. Chronicle. Supplement containing French translations of the English, German, and French articles.

IX.—NOTE.

SOCRATES AND PLATO.

In Mr. Blunt's review of my pamphlet on this subject there is a (doubtless unintentional) misrepresentation of my position which, I think, calls for correction. He says that I "rely as portraiture upon Xenophon's *Memorabilia*, with the support, such as it is, of Plato's dialogues of search and certain remarks of Aristotle". There is really a twofold misrepresentation here. In the first place, I do not rely upon any one as portraiture, because I am not attempting to give a complete portrait of Socrates, or a portrait at all, but only to consider the evidence on certain definite questions which have been raised about him. Of this evidence Xenophon supplies an important part. Incidentally, may I remark that most of Mr. Blunt's objections seem to me to rest on the idea that I claim much more than is actually the case for the whole paper or for particular arguments in it? I believe that, if he would look at them again and notice the very limited aim of the particular arguments he objects to, he would recognise this. Secondly, though I use Xenophon as one of the witnesses, I am far from giving him such a pre-eminent place among them as Mr. Blunt's words imply. I believe the evidence derived from Aristotle and from a consideration of Plato's dialogues themselves to be really far more conclusive against Prof. Taylor's view than anything we can derive from Xenophon. And if I were attempting a complete portrait of Socrates I should be still more careful how I trusted to his account. I thought I had made it sufficiently clear that I recognised fully Xenophon's serious limitations as a biographer of Socrates (see *e.g.* p. 13). I raise this point as one of general importance for the whole subject. The advocates of the view I attack sometimes seem to speak as if those who differed from them were entirely dependent upon Xenophon, and were bound to believe in the complete accuracy of his whole account. It is important to recognise that this is not so. Although we do not believe that Xenophon is the half-witted liar Prof. Taylor's view involves his being, so that we can give some weight to his testimony on certain points, we are very far from dependent on him. Indeed I would go so far as to maintain that our view could be sufficiently established were the *Memorabilia*, or the whole of Xenophon's works, entirely lost.

G. C. Field.

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MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY

I.—ARE MEANINGS INHERITED?

By C. Lloyd Morgan.

In the new edition of his *Manual of Psychology* Mr. Stout has added a valuable and suggestive chapter on Instinct. The question of central interest for psychologists there raised is, I think, that which I have placed at the head of this article. Of subsidiary interest is the range of the term. It has, as is well-known, a narrower and a wider application. In both, stress is laid on the specifically hereditary character of that which is instinctive, as contrasted with that which is in some way acquired during the course of individual experience. Both therefore involve the analytic disentanglement of closely interwoven factors, those of nature and those of nurture—those which are dependent on heredity-relatedness, and those which are dependent also on relatedness with the environment. In its wider application instinct includes "innately specialised interest, attention, and power of learning by experience in certain directions rather than others". What is inherited is a mental disposition with a specific conative tendency. Any such instinct may give rise to varied behaviour by which the innately specialised interest may be furthered. Mr. McDougall has ably discussed the human instincts of this order in his *Introduction to Social Psychology*. But here the task of analysis is peculiarly difficult. In its narrower application the stress is laid on specific modes of behaviour which are primarily approached from the biological side, but which have a psychological aspect in that they are correlated with modes of experience—or, since this word may be ambiguous, let us say, with modes of cognitive awareness with accompanying feeling-tone. Whether we should add conation also, depends on how this term is defined. Mr. Stout inclines to decide in favour of the wider application

of the word Instinct. Much here depends on the universe of discourse. Though I am myself disposed to favour the narrower usage where genetic problems are under discussion, and am prepared to urge that it is preferable on scientific grounds, I none the less agree with Mr. Stout that, in view of the position taken up by recent writers of authority, and in view of the usage of ordinary language, there are advantages in retaining the use of the word in its wider scope. In what I am here to say, however, I have the narrower usage chiefly in mind.

If we are to draw a distinction between instinctive and intelligent behaviour (it is better to use the distinguishing terms in their adjectival form) we must remember that it is almost impossible, perhaps quite impossible, to adduce examples of purely instinctive behaviour. Certainly what are commonly given as illustrations of the instincts of animals are blended results in which the instinctive preponderates in greater or less measure over the intelligent—but in which the intelligent is also present. Hence the need of analysis to enable us to distinguish, and if possible to evaluate, the instinctive and intelligent parts within the blended whole with which the psychologist has to deal. But distinguishing analysis is impossible unless we have clearly in mind the several characteristics of what are to be distinguished, the one from the other. The difficulty is, however, that two interpreters may not improbably, as matters now stand, disagree as to the characteristics on which stress should be laid. We should therefore seek the exact locus of disagreement. Then, and then only, shall we be in a position to decide which interpretation has the greater weight.

First, I shall characterise the instinctive and the intelligent in a manner that is fully open to the fire of Mr. Stout's criticism, since it is avowedly based on the assumption that meanings are not inherited. On this assumption the purely instinctive part of the behaviour, say, of a newly hatched duckling which is placed in water and swims, may be expressed symbolically as PB, where P stands for a presentation (a bare presentation to sense) and B for the behaviour which, on this view, is organically determinate. Of course the sensory presentation may be that of a complex situation; of course the behaviour itself affords a further presentation to sense; and of course what we infer from the observation of instinctive behaviour as it runs its course is an enchained sequence. The formula PB must therefore be read serially, and may be very complex, involving a definite sequence of different PB's as the instinctive situation develops. But, on

this interpretation, the instinctive sequence as such—that is, as analytically distinguished—is just Pb business from start to finish. The organising relationships are on this view organic.

It may perhaps be said that in the foregoing statement I have no right to use the word presentation. I ought, it may be urged, to speak of physiological stimulation. But this would involve a confusion of the biological and the psychological data. It is true that, on this view, the stimulation of receptors is the physiological condition, and the constitution of the organism is the physiological ground of the observed behaviour. By stimulation the behaviour as such is determined; in virtue of the inherited constitution it is also determinate. But the psychological data are the modes of awareness correlated with stimulation and response. The point here is that what the psychologist primarily deals with is a mode of experience, and if it be not a mode of experience he has no direct concern with it. But here again the ambiguity of the word experience is troublesome. It must suffice to say that what I speak of is bare acquaintance with bare appearance—just the raw material out of which experience in its more developed form may be fashioned. This raw material, however, is not formless since instinctive behaviour has been moulded by natural selection in nice adaptation to biological ends which we, who have knowledge of normal routine, may foresee. It is purposive, though not, *qua* instinctive, purposeful. The solitary wasp digs a nest, stores it with grubs on which she lays her eggs, and closes the opening. But in this case, as Mr. Stout says, "she knows nothing of what is going to happen after the deposition of the eggs, and the needs and habits of the larvæ are quite different from her own"; and he adds in somewhat metaphorical language: "It is not she who provides for the future, but nature, which uses her as an instrument to that end" (p. 338).

Assuming, then, that at this early stage of psychological genesis (and it is perhaps a questionable assumption) there is some differentiation between appearance and acquaintance therewith, we have, on the hypothesis so far formulated, presented appearances and awareness of phases of behaviour, given in serial sequence—and that is all the psychological stuff there is in the purely instinctive business as analytically distinguished. We have just a sequence of Pb's, with associative relatedness in the making or being established. I think it is not unusual to speak of the making or establishment of associations as "learning by experience," and to

speak of subsequent revival, in virtue of the associations so formed, as the psychological basis of "profiting by experience". No doubt at a higher level of mental development the phrase "learning by experience" has reference to a process in which intelligence in large measure co-operates. No doubt, therefore, even at this level the phrase may seem to carry the implication that intelligence must be present. It should be clearly understood, therefore, that, in our present connexion, learning by experience means no more than the establishment of associations. That is "what takes place when the process of learning by experience actually goes on" (p. 350). And that is essentially what takes place in all subsequent cases of learning by experience. Associative relatedness is in the making. It may be said that the establishment of associations is itself the work of intelligence. But is Mr. Stout prepared to urge that this is so. He himself tells us in the *Groundwork* that "it is most important to remember that association does not stand for any actual psychical process. . . . Association is an acquired connexion of dispositions, and like the dispositions it is formed in the course of conscious experience and it is a condition determining subsequent conscious experience. But as the dispositions themselves fall outside of conscious experience so their union falls outside of conscious experience" (p. 60). If I rightly understand this passage it lends no colour to the view that the formation of associations is the work of intelligence, unless it is implied that only in the course of conscious experience as intelligent can associative connexions be formed.

When associations have been formed so as to link the data within an instinctive sequence, revival is rendered possible. That which is so revived is comprised under the head of (secondary) meaning. The value of such meaning is that it so qualifies the original presentations as to make them on the second occasion other than they were, by themselves and unqualified, on the first occasion. They are raised to the perceptual level A *conditio sine qua non* is the repetition of sequence or part of sequence. Without that there could be no profiting by experience. Such a qualified presentation may be symbolised as P*m*. This again is followed by B. But since the previous B was sequent on P whereas this is sequent on P*m*, this new B is correlated with a different predecessor, and is itself so far different. Let us call it B′. Then P*m*B′ is the formula for intelligent behaviour as experienced, and serves to define it in contradistinction to PB the formula for instinctive behaviour as experienced in naïve awareness. This differs, I think, from Mr. Stout's charac-

terisation when he says that "intelligence involves some cognisance of an end pursued" (p. 349). That of course is a true characterisation of a wide range of human intelligence. But though the meaning which observers of sequences repeated with a difference infer to be present as qualifying the presentations has for them prospective value, this involves the analysis of P*m* into P and *m* so that, for them, the *m* has distinct reference to what is yet to come. It is perhaps hazardous to deny that, at the inception of intelligent behaviour some dim prospective reference is present, yet it may be questioned whether it need be present. It may be claimed that it suffices for psychological interpretation to regard the actually existent P*m*—the qualified presentation—as the precursor of B′—the modified behaviour—without anything so complex as prospective reference.

I have sought analytically to distinguish, and to characterise, that which, on this view, is to be regarded as instinctive, and that which is to be regarded as intelligent—both terms qualifying a behaviour-situation as experienced. But, as has already been indicated, most of what are popularly regarded as illustrations of instinct in animal life are blends of instinctive and intelligent behaviour. The original performance which was predominantly of the PB type is modified by more or less of acquired meaning. The bare presentations have ceased to be existent entities when there has been any extensive commerce with the normal environment. They have all acquired meaning. All the PB business has been raised to the higher level of P*m*B′ business. That is so in large measure. But the P*m* is itself in a sense a blend. It is a unity with inseparable but distinguishable factors. Let us however fix our attention on the behaviour. It is modified behaviour. There remains some measure of correlation of the original PB type and there is added some measure of correlation with meaning as acquired. The problem is to estimate, as best we may, the relative values of the one and of the other. Statistical methods may, some day, be divised which will furnish the required correlation coefficients. As it is we are for the most part dependent on more or less probable opinion. When a moorhen dives for the first time in its life I am disposed to rate the value of the direct heredity-correlation as very much higher than the value of the correlation with acquired meaning due to previous other-use of the same limbs and muscles in other life-situations. The dive, *qua* dive, seems to me to be, for the most part, interpretable in terms of PB; but I fully admit that the total presented situation has some meaning begotten of prior

experience. On the other hand Dr. Myers, as I understand him, assigns to the Pb element—if he admits such an element at all—a much lower value. So the answer to the problem, analytically considered, remains undecided. The point is, however, that, on the hypothesis under consideration, in perhaps all examples of what is popularly called instinctive behaviour, there is this two-fold correlation, there is so much instinctive warp and so much intelligent woof. The question is, in each case, how much?

The interpretation of instinctive behaviour and instinctive experience, a brief sketch of which has now been given, is admittedly based on the assumption that meanings are not inherited. That assumption may however be criticised; it is rejected by Mr. Stout; and the counter-assumption is made that meanings are inherited. It is clear that on the latter assumption the whole theory of instinct as above formulated must be subjected to drastic revision.

The essential feature which distinguishes the interpretation of instinct on the second assumption, is that we start with a P*m*. The meaning which qualifies a presentation has not to be acquired solely in the course of individual experience; there is always, whenever the term instinctive is properly applied, some qualification by meaning from the outset. Hence if we regard P*m* as a formula which symbolises the percept, there are inherited percepts, in the sense that there is a congenital linkage within hereditary dispositions such that a given presentation calls up a meaning prior to any direct experience of such meaning through further presentations. Thus, according to Mr. McDougall, "we must regard the instinctive process in its cognitive aspect as distinctly of the nature of perception however rudimentary" (*Int. to Soc. Psy.*, p. 28). And he holds that, in exceptional cases, it is not very rudimentary. "The construction of such nests [as those of the weaver birds of Southern India] seems to me," he says, "to imply on the part of the birds . . . innately conditioned representations of the form of the nest" (*Brit. Journ. of Psy.*, vol iii., p. 252). This seems to suggest an inherited image which serves as a model which the weaver bird copies. If I rightly understand him Mr. Stout does not go so far as this. In his treatment the inherited meanings are vague and ill-defined. Still there they are. "Thus, in the first performance of an instinctive action, there will be a rudimentary conation or active tendency directed towards an end which is an end for the animal itself, and does not merely appear as if it were so to the external observer. It is true indeed that the animal will initially have no anticipation of the special means

by which the end is attainable, or the special form which it will assume when attained. Only experience of results can yield definite prevision of this kind" (pp. 355-356).

We have then, on this view, a new psychological task—that of differentiating between the meaning which is inherited and the meaning which is acquired. We must distinguish between, say, P*m'*, the presentation with inherited meaning, and P*m'm*, where there is a further qualification through the meaning which is acquired in the course of individual experience. We have, so far as is possible, to assign specifying characteristics and relative values to *m'* and to *m* respectively, whenever, in later life, both are present. It is one of the merits of Mr. Stout's able discussion that he attempts to do this. And though the distinction comes to little more than the relative vagueness and short range of the one, contrasted with the greater definiteness and longer range of the other, still that is a helpful guide to discussion; and that perhaps is as much as can be expected in the present state of knowledge or opinion.

There can be little doubt that the instinctive behaviour of animals seems to imply—and by the majority of people is held to imply—at any rate some prevision of what the instinctive behaviour is leading up to. To take one somewhat complex example; the careful observations of Mr. Eliot Howard on the warblers go far to show that the male birds reach England in the spring before the females, and that they then proceed to establish a "territory," into which other male birds of the same species are not allowed to enter. Now many of the males are young birds which have never yet mated. But the establishment of a territory is preparatory to mating. And the whole elaborate behaviour seems to imply prevision of the arrival of some female as a prospective mate, though of such coming of the hen birds and of mating with one of them there has been no previous experience. It is almost impossible to describe the facts as observed without giving expression to what is thus supposed to be in the mind of the male bird, as itself expectant of the further developments which we, who know the routine of bird-life, so confidently expect. Those who are cautious in their interpretation are perhaps content to say that the bird in establishing a territory behaves as if he knew that a female, to be in the future his mate, would ere long arrive to satisfy one of the most imperious cravings of his nature. But then it is hard to stop at "as if"; and so many "as ifs" are misleading. The ammophila behaves as if she knew what will take place in her nest after she has closed the opening. No

doubt she may have such knowledge; but if so it is gained in a manner which is at present psychologically inexplicable. Many of the higher animals behave as if they were capable of quite elaborate processes of reasoning; but in a great number of cases the facts can be explained as the outcome of psychological processes much lower in the scale of mental development. And, in my judgment, if they can be so explained, they should be so explained. We have to be constantly on our guard against what Mr. Stout calls "the besetting snare of the psychologist—the tendency to assume that an act or attitude which in himself would be the natural manifestation of a certain mental process must therefore have the same meaning in the case of another" (p. 49). With his own warning in mind, we have, I think, to be on our guard when he tells us that "animals in their instinctive actions do actually behave, from the outset, as if they were continuously interested in the development of what is for them one and the same situation or course of events; they actually behave as if they were continuously attentive, looking forward beyond the immediately present experience in preparation for what is to come" (p. 351). No doubt they do. No one dreams of denying these "as ifs". But we may not pass lightly from "as if x were present" to "the presence of x". I do not assert—I do not wish even to hint —that Mr. Stout fails to give the reasons, based on general psychological principles, which, in his opinion, fully justify the passage from the one to the other. The question is whether his argument carries conviction — whether the affirmative answer he gives to the question which I have placed at the head of this article is to be accepted or rejected. If it be accepted, and if some measure of prevision, dim or clear, be a mark of intelligence, then it follows that "instinctive behaviour is essentially conditioned by intelligent consciousness" (p. 357). For if inherited meaning (m') be congenitally linked with initial presentation (P), and if such meaning be prospective, it is clear that instinctive behaviour should be regarded as originally intelligent, since it is, *ex hypothesi*, "directed to an end which is an end for the animal itself".

Coming now to closer quarters with Mr. Stout's contention, "the important point is that," when the animal is behaving instinctively, "the situation is apprehended as alterable" (p. 355). That is a characteristic feature of inherited meaning; and that, in itself, renders instinctive behaviour intelligent *ab initio*. The exact significance of the words "apprehended as alterable" needs, I think, further elucidation. Reverting to the assumption that meanings are not

inherited, it is sufficiently obvious that situations are, as a matter of fact, in course of alteration during the progress of instinctive behaviour; and it is admitted that there is, in a sense, awareness of alteration as it comes. The phrase is perhaps a little ambiguous. There is, of course, awareness of the altering situation. But there need not be apprehension of the situation *as altered*, still less *as alterable*. The latter seems to me a somewhat complex form of cognition; and I question whether it is present in the mind of even the most intelligent animal. But I am probably reading into the expression "apprehended as alterable" more than Mr. Stout wishes to convey. I must remember that, as he well says, "human language is especially constructed to describe the mental states of human beings, and this means that it is especially constructed so as to mislead us when we attempt to describe the workings of minds that differ in any great degree from the human" (p. 50). Seeing that Mr. Stout regards prospective reference as relatively vague since only experience of the results can yield definite prevision; seeing that his main contention is that "the rudimentary reference to the future is not wholly indeterminate"; we may perhaps substitute for the words "apprehension of the situation as alterable" the words "undefined expectancy of coming difference". I an not sure that this will adequately express what Mr. Stout has in mind; and I have no wish to give anything but full value to what he conceives to be a leading (perhaps the leading) characteristic of inherited meaning. In any case we are told that "the prospective attitude of mind may consist merely in looking for further development of the actual situation without forestalling the special nature of the development" (p. 355). If then we agree to speak of the coming difference which is indefinitely expected as an end, the animal "may be pursuing a proximate end, though it is blind to more remote consequences, which appear to the onlooker as ends fulfilled by its action" (p. 352).

On congenital attention and interest, in some sense of these words, Mr. Stout rightly lays stress. But what sense? That hereditary relationships obtain between cats and mice or small birds, between spiders and flies, between rabbits and lettuces or carrots; that throughout the whole range of life there is the closest and most intimate correlation between heredity-relatedness and relatedness to the environment; that the direction of attention and interest is predetermined by the constitution of the organism; such facts and inferences are not likely to be denied by any one. But here again I must harp on the same string and ask whether we should not be on our guard against reading into the attention and

interest of the animal, when it behaves instinctively, too much of what these terms signify in the mental life of human adults. In discussing attention the psychologist generally has in mind a fairly high level of mental development. At this level he is unquestionably right in emphasising unity and continuity of interest directed towards a definite end. Here "all attention is, in a sense, expectant or prospective. In seeking the development of our object we look forward to the appearance of new features and relations belonging to it, which are not yet apprehended" (p. 159). Here movements of adjustment in fixating the object of attention presuppose interest in that further and fuller cognisance of the object which is the end in view, though the nature of what is thus cognised is only revealed when this end is attained. Here therefore attention is distinctly conative in so far as there is striving towards some prospective end; and conation is attentive in so far as there is selective focussing on what is contributory to that end. But may there not be a far earlier state of matters, at the dawn of conscious awareness, when the germ of attention is predominantly of the PB type, and when the germ of interest is the glow of satisfaction which accompanies the normal PB or sequence of PB's? In the human infant an early indication of something, very rudimentary, of the nature of attention and interest, in this sense, is presumably present when, apparently long prior to the focussing of vision, the gaze just clings to a gleaming surface not too brightly illuminated. It does not seem necessary to assume, in this case, the presence of any prospective reference, however dim. When an infant, hearing a strange sound, ceases to be restless and assumes what we call an expectant attitude, we perhaps say that surely it is expectant of something which will follow, though what that something will be it is for the future to decide. Such are no doubt the appearances; but appearances may be deceptive; or rather what we infer from the appearances may perchance be false. There may be only something very rudimentary of the nature of surprise—though the word surprise carries with it, for us who use it, too much of prospective meaning. We live in a world of meanings; and that makes it hard for us to interpret infant behaviour in psychological terms.

Let us however return to the animal. Its "whole behaviour throughout the course of an instinctive activity even on it first occurrence, shows all the outward characteristics of attentive process. . . . It is throughout pervaded by the attitude of waiting, watching, and searching for future impressions. In this respect it is sharply contrasted with the mere reflex. The reflex reaction occurs when the stimulus

is applied as a loaded pistol goes off when the trigger is pulled. It is not prepared for by previous activity. Until the appropriate stimulus occurs the animal remains passive. On the other hand, the bird gathering materials for its nest, ants tending eggs and larvæ, a cat or a crab lying in wait for prey, take the initiative, so to speak, and go out to meet coming impressions" (p. 344-345). Now so far as behaviour is "prepared for by previous activity" we have, I take it, acquired meaning which supplements and may materially modify inherited meaning, if that also be present. It is difficult analytically to distinguish the one from the other. But that the animal does, in a sense, "go out to meet coming impressions" may be freely admitted even on the PB hypothesis. On that hypothesis all the truly initiative part of the behaviour is due to the acquired meaning which, after some commerce with the environment, is always present in greater or less measure. Apart from this, for which due allowance must always be made, the question is whether the animal, *qua* instinctive, is driven forward to meet the new impressions blindly, in virtue of its inherited organic constitution, just as the babe in the womb is driven forward through many complex stages and phases of development till it is brought to the birth in fulfilment of what are metaphorically spoken of as Nature's wise purposes; or whether it consciously goes forth to meet them in fulfilment of some dim purpose of its own. Who can answer this question with any measure of assurance?

With regard to the main issue, although I am not prepared to deny the presence of inherited meaning in some cases, I still have some hesitation in accepting it on such evidence as we now have, even backed by the general considerations which Mr. Stout adduces. If I provisionally accept it, I am disposed to accentuate all that Mr. Stout says as to its vague and indefinite nature—probably to go a good deal farther in this direction than he does. Even if some dim preperception, such as I admitted in *Instinct and Experience* as possible, may perhaps be inferred from the facts, when they shall have been more searchingly analysed, I have yet more hesitation in speaking of prospective reference. At the instinctive level reference to past or future of such meaning as there may be is, I think, quite beyond the capacity of the animal, though within its present experience there may be incipient differentiation of what is just coming in from what is just going out. Seeing then that I am forced, as at present advised, to whittle down inherited meaning to such very attenuated proportions, I need scarcely add that its presence or absence does not seem to me to aid us much in the interpretation of psychological problems.

II.—PSYCHIC FUNCTION AND PSYCHIC STRUCTURE.

By Henry Rutgers Marshall.

I.

As I sat yesterday afternoon in a small company listening for an hour or more to a wonderful rendering of the work of some of the musical masters, I found myself calling to mind the attitude of certain thinkers of our day in relation to introspective study with which I had been impressed a few days before by the remarks of a well-known professor of philosophy, and of an equally prominent professor of psychology, who had joined in arguing that the method of introspection had yielded all of value it could be hoped to give to philosophy and to psychology; and that, if we were to look for advance, our attention should be fixed upon what they chose to call functional psychology, our studies being concentrated upon behaviour.

The remembrance of this discussion held my attention as I considered that at the moment I was perfectly quiescent, *i.e.* was not giving to an observer any evidence whatever of behaviour or of functioning, while nevertheless my life of experience was full and significant. Nor could I but believe that the same was the case with those around me. During the whole performance of a Brahm's quintette, the eminent musical critic seated near me moved but once, and then during the pause between two of the movements. The skilled pianist by my side displayed no observable change of behaviour, unless the sparkle of her eye, and the flush on her cheek could be described in these terms.

I found myself wishing, as one often does, that it were possible for the moment to be these others; to discover what their experiences really were, and to hold them in memory for comparison with my own. I knew that the critic who has given his whole life to the study of music must be finding in his experience something that was not in mine; and that the pianist must in like manner be thrilled in ways that

neither the critic nor I could know. At the very close of the *finale* I found in my experience a questioning attitude relative to the perfect accuracy of the interpretation of the master's meaning. Without a word from me the pianist said in an apologetic tone, "Well! the execution of that final phrase is exceptionally difficult," and I felt at once that in a measure I knew of her experience; and yet only in a measure; for what had been a questioning with me, was knowledge for her.

Thus again it was borne in upon me, as it had often been before, how paltry and insignificant a part of the experience of men is interpretable in terms of those human movements which are similar to the behaviour observable in the animals by which alone we judge of their experiences; and how deeply important is the study of our own inner experiences, and their interpretation in verbal terms which enable us in some degree to communicate their nature to one another. And then again my thought recurred to the philosopher who told me that little of value was likely to be gained by further attempts to analyse our conscious states: and to the teacher of psychology, who told me that he had come to look upon the study of behaviour as the most significant work the psychologist could engage in.

I would not for a moment be understood to under-estimate the value of our modern investigations of behaviour, for I believe them to be of very great scientific importance. I would, however, emphasise the fact that these studies of behaviour are primarily biological, and only incidentally psychological; and that they usually involve teleological assumptions or implications which are foreign to the strictly psychological manner of thought.

That the philosopher and psychologist above referred to are representative of a large class of serious students who overlook this fact is evidenced by the methods of procedure and forms of argument in current use by writers of authority in the fields of so-called "Animal Psychology" and "Comparative Psychology". And the influence of the conceptions thus entertained and enforced is clearly seen in the bold statements made by some of our ablest neurologists and biologists, whose investigations are dependent upon the observation of the functioning of animals, to the effect that psychology must in the end be treated as a branch of biology.

That this shifting from the field of psychology to that of biology is not appreciated is perhaps bound up with the fact that the phrase "functional psychology" is taken over from the vocabulary of introspective psychology, while the word function in the phrase as used is given a special meaning not

originally belonging to it. Stout and Baldwin[1] speak of the "classification of the mental functions" as the "distinction of the fundamental constituents of every concrete state of consciousness". They evidently use the word function in this definition to refer to characteristics observable only in introspection; and the word as thus employed has a very different meaning than is given to it when the modern student of behaviour speaks of functional psychology, for he refers to facts which have significance in the observation of the realm of outer world objects.

The changed meaning of the phrase is perhaps to be traced to the modern emphasis of the psychic correspondents of motor reactions, which are significant in connexion with the studies of both introspective functional psychology, and of modes of behaviour; this accounting for the fact that the student of behaviour still speaks of himself as a psychologist, although he has really become a biologist of a certain special type; *viz.* one who is not content merely to correlate objectively observable facts of behaviour, but who for purposes of interpretation makes use of certain metaphysical assumptions as to the correspondence of this behaviour with consciousness.

That some of our psychologists and philosophers should have been tempted to take the position above referred to is perhaps to have been expected. The natural man does not find it easy to make the distinction between the stream of his mental life and the stream of objects in the outer world; nor easy in his thinking to cling to the mental stream when once it is distinguished: and the philosopher and psychologist, being for most of the time natural men, are very ready themselves to forget the distinction; a tendency which has been greatly fostered by the modern development of psychophysics, and especially by the attention given of late to the relation of conscious experience to motor response, and to functioning within the nervous system, of which I speak below. The modern concentration of thought upon efficiency, which in the philosophical field is reflected in the present day pragmatic movement, must surely also be recognised as a factor in the movement of psychological thought here considered.

Thus it happens that the majority of those modern students of behaviour, who still call themselves psychologists, have really abandoned the study of mental life. Their attitude is apt to be that of one who, having become discouraged by the difficulties met in the study of an intricate science, persuades himself that the study of this science itself is really not

[1] *Dictionary of Philosophy and Psychology*, vol. i. p. 188.

important. Their belittlement of the value of structural psychology, and their emphasis of the value of what they call functional psychology, thus actually amounts to little more than an acknowledgment of loss of interest in the study of psychology itself, and an expression of opinion that this study is worth while only so far as it can be shown to have direct practical application; they thus representing in this field that broad class of men whose thought is always turned to the attainment of observable results, who in our day would encourage no research unless it can be shown to bear relations to applied science, and who would even aim to displace the humanities by the practical sciences in our university courses.

It may perhaps be said that I am giving too narrow a meaning to the words function and behaviour as employed by those who defend such a position; that they are intended to cover functioning and behaviour within the organism, that are inferred, but not observable. But evidently this very inference itself involves introspection; and it is therefore clear that, if these terms are thus used, the arguments intended to discredit introspective study can have no weight.

In writing for the readers of MIND I do not need to present any argument in opposition to the view here referred to. We see that what the student of behaviour has commonly in mind when he refers to functional psychology should more properly be spoken of as the study of behaviour as elucidated by psychology; that it is really not a branch of psychology at all, and therefore cannot properly be contradistinguished from structural psychology.

II.

Structural psychology may however be contradistinguished from what we have seen above is quite properly called functional psychology, but which, in order to avoid misunderstanding, I shall speak of in what follows as 'process psychology'.

As it is possible that the contentions in reference to the relative merits of the two methods of study involved is by some intended to refer to structural psychology as contradistinguished from what I thus call process psychology, it will be well perhaps to compare the two; although I may state at once that I can see no ground whatever for discrediting either one of these methods. Any careful consideration of the development of the sciences that have become so significant in modern intellectual life, must convince us that the study of process and the study of structure must go hand in hand; each advance made by either mode of study being

suggestive to those whose thought naturally turns them to the contrasted mode. And if this is true in general, it certainly is likely to be true in relation to psychology; and therefore instead of raising questions as to the relative merits of the two methods of study referred to, we should rather ask whether process psychology has adjusted itself to advances in structural psychology, and structural psychology to those of process psychology; and whether psychology is advancing by an adequate correlation of the data gained by these diverse modes of approach.

The sciences have in general sprung from beginnings which involved little more than the cataloguing of certain striking characteristics discovered in the study of objects which happened to interest the observer; and the development of these sciences has been invariably retarded by the concentration of effort upon attempts to correlate these specially marked characteristics, and to explain others of a less striking nature as derivatives from their combination. The sciences have developed into effective instruments only so far as they have freed themselves from the limitations of this method; and, deliberately turning attention from the characteristics that are most easily discerned, have searched for more fundamental laws of which these characteristics are merely emphatic exemplifications.

Such being the case it is but natural that we find the same procedure exemplified in the relatively modern development of mental science. And yet it cannot but be a matter of some surprise that, with the example of the more prominent sciences before them, the modern psychologist has stepped so little beyond the initial stage above referred to, and has remained content until very lately to limit his attention almost exclusively to the study of those mental forms which happen to be most emphasised in his experience: as becomes clear when we consider the methods of structural study, to which we shall first refer.

Our mental life, as distinguished within experience from the stream of objects in the outer world, is called to our notice most prominently by the appearance of vivid sensations, which at times persist quite apart from the persistence of the outer world objects with whose existence their initiation is bound up; and it is but natural that the earlier psychologists should have been led to look upon these sensations as of pre-eminent importance in connexion with the comprehension of the nature of mental life as a whole. It would seem however that such a mode of approach should long since have been

seen to be unlikely to lead to satisfactory results; yet that this has not been perceived is clear in the fact that the atomistic sensationalism of the Associationists held such complete control as it did until the last generation; and that notwithstanding its acknowledgment of bankruptcy[1] in the "mental chemistry" of John Stuart Mill, it still remains in control of the modes of study adopted by not a few of our best known psychologists; as is evidenced in their published works, and in the large proportion of the time given by psychophysical students under their direction to the study of the sensations, and of the structure of the sense organs.

The modern concentration of thought upon the various aspects of behaviour, above spoken of, has indeed turned attention to the study of the phases of our conscious life which accompany our motor reactions; phases which in our experience stand next to the sensations in the order of prominence: but in the main the structural psychologist has adopted, in relation to these emphatic experiences, the same crude method to which he had become habituated by the teaching of the sensationalists. He has however not succeeded in making a better showing than these latter; who, far from from being driven from their position, have turned their efforts rather to attempts to express these motor consciousness states altogether in terms of "back stroke" sensations: attempts which have not been sufficiently convincing however to be wholly acceptable to any but those who are predisposed toward the sensationalistic doctrine.

The unsatisfactory nature of the results obtained by this concentration of attention upon sensations and upon motor experiences has however been tacitly, if not always openly, acknowledged by the best of our modern psychologists; who, convinced that the fundamental weakness of the associational theory lay in its psychological atomism have almost with one accord agreed that this atomism must be abandoned in favour of the view that consciousness is a psychic system, rather than an elaborate combination of isolable psychic elements. It is interesting to note however that notwithstanding this theoretical rejection of psychic atomism, few of the leading psychologists of the immediate past have actually avoided altogether the atomistic conceptions impressed upon them by the masters of the earlier generations from whom they necessarily learned in their youth; and this should put us on our guard lest we in our day also fail in this regard, and should lead us to turn our attention the more seriously

[1] *Cf.* Stout, *Manual of Psychology*, p. 110.

to the interpretation of the structural forms observable in reflexion, in terms of this systemic conception.

When we turn from the consideration of structural psychology to that mode of approach which I speak of as process psychology, we find the same crudity of early thought, and the same slowness to adopt a more fruitful method.

The tendency of thinkers to postulate a special process to account for each very noticeable form of mental experience has been evidenced from the earliest times. It has withstood many an attack, and has come down even to our day in the scarcely yet dislodged "faculty psychology". The attention of the early Greek philosophers was indeed called to the very notable processes of intellection and conation, and attempt was made by them to subsume all other processes under these two; a mode of thought which became so fixed by the powerful influence of Aristotle that it held almost complete sway until the middle of the eighteenth century. This conception lost its hold finally through the influence of Kant, who followed his immediate predecessors in insistence that a third process of "feeling" has as much right to recognition as intellection and conation; and to this day the majority of philosophers accept cognition, feeling, and conation or will, as mutually exclusive, and as satisfactorily covering all modes of psychic process. In our time, however, Brentano has led a revolt against this Kantian position, holding that "feeling" should be considered as an aspect of conation, but adding in place of it, as a third fundamental process, that of judgment or belief: and proposing as a principle of division, the different modes in which consciousness may refer to an object, as being pleased with it, desiring it, remembering it.[1] Stout has followed Brentano; recognising however that such a mode of consideration is not wholly satisfactory, as it deals only with the modes in which consciousness refers to an object, and makes no allowance for the possibility of conscious experience without objective reference.

The recognition by Stout of this limitation is important, for it brings out clearly the inadequacy of the method of study which is guided by the fixing of attention primarily upon what is emphatic in experience; and leads us here again, as we have been led in relation to structural psychology, to ask whether the process psychology of the present day has been correlated with the conception of the systemic nature of consciousness now so generally accepted: a question to

[1] *Dictionary of Philosophy and Psychology*, vol. i., p. 188.

which we shall return after we have considered briefly certain implications of this systemic conception itself.

III.

It may be noted in the first place that although this conception of the systemic nature of consciousness has been reached by introspective study, it gains greatly in significance when it is considered in connexion with the fact, of which we have convincing evidence, that the consciousness of a given moment corresponds in some manner with the activities in the same moment of some part at least of the individual's nervous system, to which part I shall mean to refer in what follows whenever I speak of the nervous system.[1]

The specific sensations which have attracted so much attention in the past are a special type of what we may speak of as specific mental items.[2] They are known to appear in correspondence with certain special activities in special parts of the brain part of the nervous system; and it is generally assumed that all other recognisable special mental items,—*e.g.* emotions, images, thoughts, etc.,—correspond also with special activities in special parts of the nervous system.

But it is generally agreed that all nerve substance is in some measure active as long as it is alive, and it thus appears that what we thus speak of as special activities in special parts of the closely correlated nervous system are really more correctly described as emphatic activities within an all-active nerve system; or what I find it convenient to speak of as *neururgic emphases*. Beyond this, inasmuch as the nervous system is highly complex, and is stimulated to activity in each moment from many sources, these neururgic emphases never stand isolated and alone, but each appears as part of what we may speak of as a *neururgic pattern*.

Correspondingly, when we turn to the nature of our conscious experience, we discover that, however emphatic any special mental item may be, it never appears in actual isolation; not even the most punctual of sensations, *e.g.* a pin prick, can be experienced apart from a somewhat more of con-

[1] I make this limitation to avoid controversial ground. As I have shown in my *Consciousness* there is much reason to believe that some form of psychic existence corresponds with all nerve activity, and indeed with all the activities of life.

[2] I use this term in place of the usual term presentation, because I wish here to avoid the implication that a somewhat exists to which these mental items are presented.

sciousness than itself. And we are thus led to see that as each special nerve activity may be described as a neururgic emphasis within a neururgic pattern, so each specific mental item of which we become aware may be described as a *psychic emphasis* within a *psychic pattern.*

If we accept the hypothesis of correspondence above referred to we are led to certain other positions which relate directly to the subject before us.

1. We have evidence that the activities of the whole nervous system are fundamentally of the same nature throughout; and we are ready to agree that the neururgic emphases appearing in certain parts of the nerve system displays the neururgic characteristics of the whole system. 2. We are also led to believe that all parts of the correlated nerve system are reciprocally efficient: that is to say, each marked neururgic emphasis must effect the whole neururgic situation of the moment; and this marked neururgic emphasis in turn must be what it is because of the influence upon it of the neururgic situation in the system apart from the marked emphasis.

Correspondingly we should be prepared to hold (first) that consciousness is of the same fundamental nature throughout; and that the psychic emphases, or mental items of which we are aware, display the characteristics of the whole psychic system. And (second) that all parts of consciousness are reciprocally efficient: that is to say, that each psychic emphasis must affect the nature of the whole of the consciousness of the moment in which it appears; and that it in turn must be what it is because of the influence upon it of the rest of consciousness of the moment.

When we consider the points thus made we at once perceive that what at first sight appear to be diversities of neururgic process may be interpreted in terms of one fundamental process manifested in different neururgic forms: the nature of these diverse forms being determined by differences of neururgic emphasis within the all-active nervous system.

Correspondingly then we should expect to discover that what have appeared to be diversities of psychic process are really diverse manifestations of one fundamental process; and that the apparent diversity of process is due to the fact that its manifestations are given by differences of psychic emphasis within the consciousness of the moment.

That such a view is warranted appears at once probable when we note that, as a matter of fact, the apparently diverse mental processes, referred to in Division II. above, are all

evidenced by just such special psychic emphases. What we know as the process of cognition is evidenced by the appearance of the mental items which we describe as sensations, and percepts, and images, and thoughts, etc.; conation by those which we call desires, impulses, and will-acts; "feeling" by the sense of a vague somewhat that welcomes and rejects, and which often develops into and is never separable from, that very significant mental item which we call the efficient empirical ego; belief by the appearance of the relational "reality feeling" (Baldwin), or sense of realness as I prefer to call it, in conjunction with the appreciation of the efficient empirical ego.

This view that we are dealing with a single psychic process which is diversely manifested, is corroborated when we view the matter from another standpoint. The fundamental neururgic process appears to involve a transfer of energy through each element of the all-active nerve system, each element being receptive of a stimulus, and reacting upon what is beyond itself. The receptive phase of this process is more noticeable than the reactive phase in certain parts of the nerve system, and in others the reactive phase is more noticeable than the receptive: but this does not blind us to the fact that each elementary nerve activity points back to what brought it into being, at the same time that it points forward beyond itself.

Correspondingly we may hold that the fundamental psychic process always points in two opposite directions. That the receptive pointing is what we know as the cognitive process, and is distinguished clearly in connexion with certain mental items in connexion with which the reactive pointing is not evident. That in like manner the reactive pointing beyond itself is what we know as the conative process, which is distinguished clearly in connexion with certain other mental items in connexion with which the receptive pointing is not evident: this reactive pointing being especially noticeable in connexion with the will-act which accompanies the break-down of an inhibition of two incompatible conative tendencies.

We are thus led to hold that the older Aristotelian conception of psychic processes has greater validity than those of more modern times; but that it cannot be interpreted to mean that cognition and conation are diverse processes; they being merely diverse aspects of one fundamental process.

IV.

The fact that the evidence of psychic process, as thus considered from the systemic standpoint, is given only in the observation of special types of mental items, indicates at once the prime importance of the study of structural psychology also in the light of the conception of the systemic nature of consciousness.

This becomes the more evident when we recall the fact, above referred to, that the mental items we appreciate are really psychic emphases within mental patterns; for this makes it clear at once that a search for atom-like psychic elements is futile; inasmuch as what we think of thus as elements can never be isolable existents, but must really be merely more or less marked forms of psychic emphasis within the broad psychic system that constitutes the consciousness of the moment considered.

This view we find corroborated moreover when we note that each of the neururgic emphases, and each of the neururgic patterns, with which they are supposed to correspond is *sui generis;* and are thus led to expect to find that each psychic pattern, and each mental item within such a psychic pattern, is also *sui generis;* an expectation which, in my view, careful introspective study shows us is fulfilled.

This fact that each mental item is found to be *sui generis* is important in another direction; for if this is the case then it at once becomes evident that no mental item can be looked upon as the resultant of the summation of, or combination of, mental elements, as the older associationists held was the case. We see rather that while diverse psychic emphasis, say *a* and *b*, appearing coincidently, must produce a resultant emphasis *c;* this resultant *c* must necessarily be diverse from *a* and *b*.

We thus find an explanation of the nature of many mental items of a complex form. We note that while percepts would not be what they are but for the existence of sensations, yet they are diverse from sensations: and in like manner that while perceptual concepts would not be what they are but for the existence of percepts, yet they are diverse from percepts. Thus we learn to comprehend also the mode of production of those psychic emphases which I call "senses of relation" which William James did so much to force upon our attention. As he says[1] "there is not a conjunction or a preposition, and hardly an adverbial phrase, syntactic form, or inflection of voice, in human speech, that does not express

[1] *Principles of Psychology*, i., p. 245.

some shading or other of relation which we at some moment actually feel to exist between the larger objects of our thought. If we speak objectively, it is the real relations that appear revealed; if we speak subjectively, it is the stream of consciousness that matches each of them by an inward colouring of its own. In either case the relations are numberless, and no existing language is capable of doing justice to all their shades. We ought to say a feeling of *and*, a feeling of *if*, a feeling of *but*, and a feeling of *by*, quite as readily as we say a feeling of *blue*, or a feeling of *cold*."

Thus we come to see also that as each mental item is *sui generis* and has a character of its own, all classifications of mental items are based upon the fact that the mental items grouped together arouse special forms of mental emphasis, which would not exist did not these mental items exist, but which are quite diverse from the mental items grouped. We recognise sensations as such, for instance, because, as the resultant of two or more sensations given coincidently in retrospect, there arises, quite apart from the experience of the sensations themselves, a special sense of relation which we describe as the appreciation of the existence of a special grouping. Thus again we recognise a mental item as one that is attended to, or as one that is remembered, because in connexion with it are aroused special relational mental items which may be called respectively 'attention experience,' and 'memory experience'.

V.

If we take into consideration these conceptions it seems clear to me that, in dealing with structural psychology, our attention should not, at the start, be given to the study of any special type of mental item, however emphatic it may be in experience, as has been the habit of the sensationalists; but should be concentrated rather upon efforts to determine the nature of the characteristics that are common to all sorts and kinds of mental items whether these are emphatic or not.

Such a method of approach I have adopted in my *Consciousness* above referred to; where I have aimed to show that each mental item or psychic emphasis, whatever its special nature may be, always displays (first) some measure of complexity or manifoldness; (second) some measure of intensity; (third) something of agreeableness or of disagreeableness; (fourth) some degree of stability or realness; and (fifth) some temporal qualification. In other words each and every one of the mental items that we are able to contemplate in reflexion is bound to carry with it five senses of relation which, if we

observe them, enable us to say that the mental item referred to is more or less complex; that it is more or less intense; that it is either more or less agreeable, or more or less disagreeable; that it displays more or less of stability, or realness, in relation to the rest of the mental pattern of the moment; and that it is qualified by either pastness, or presentness, or futureness.

I have attempted furthermore to show that, so far as we comprehend the nature of neural activity, these five general psychic qualities appear to correspond with five distinctive and general neururgic characteristics which themselves must always exist in connexion with any specific neururgic emphasis.

It is evident that, if each of these general qualities inheres in each psychic emphasis, then all of them must exist together in any one moment considered; although it may happen that no one of them is, or again that one or more of them are, sufficiently emphatic to be observed.

I have attempted to trace the correlation of these general qualities, showing which of them must tend to vary in emphasis directly; which of them must tend to vary in emphasis inversely; and which must vary in emphasis independently of one another.

Where they vary in emphasis independently we should expect to note the appearance of certain combinational senses of relation in case two of these general senses of relation are coincidently emphasised; and such a special sense of relation, in my view, does appear in such a mental item, for instance, as that which we may call the 'attention experience,' where an intensity is appreciated in its relation to the whole manifold of the mental pattern in which it appears; or again in that sense of relation which gives us our sense of familiarity, due to the coincident appreciation of realness, and of pastness; and in that which gives us our sense of anticipation, due to the coincident appreciation of realness and futureness.

The fact that all mental items are but emphases within a psychic system, all parts of which are reciprocally efficient, should lead us also to look for the rise of certain special senses of relation due to the appreciated correlation of (1) the senses of relation which yield the apprehension of the general qualities above referred to, with (2) the efficiency of the psychic system as it becomes explicit in that mental item which we designate as the empirical ego. And just such special psychic qualities we do observe. Thus the sense of the ego's efficiency in relation to the "attention experience" gives us voluntary

attention; in relation to agreeableness gives us interest; in relation to realness gives us objectivity and belief; in relation to familiarity gives us memory, and in relation to anticipation gives us expectation.

It would carry me far beyond the limits of this article were I to attempt to consider the application of this mode of approach in any detail. I present the above sketch of the method of study adopted with the hope that it may be considered by some who have little time to devote to the necessarily lengthy treatment given in my book above referred to.

The results thus reached appear to me to aid us in many ways in the comprehension of the nature of our mental life: but this may be the misjudgment of a man who has fallen in love with his own work. The method of study suggested however seems to me to have claims to consideration quite apart from the manner in which it is applied; and I can but hope that, if I have failed in this application, some one who is better balanced may be led to see sufficient value in the method suggested to carry it out to a successful conclusion.

III.—SOME PROBLEMS OF PHILOSOPHY.

By F. Melian Stawell.

Mr. Russell's book in the Home University Series is written for the general public; it is, of course, most able, stimulating, and brilliant; and it raises an enormous number of difficult problems that the author has not space to discuss more fully. Under these circumstances I trust it will not be thought unbecoming for a student from the ranks to put a number of questions, in however halting a fashion, with the hope of clearing the ground.

§ 1. *Physical Space.*—Mr. Russell starts his exposition by distinguishing between (*α*) the "sense-data" which are "private to each separate person" (p. 32) and which cannot well be supposed to exist without the individual mind perceiving them, and (*β*) the "physical objects,"—whatever these may turn out to be,—which it is reasonable to assume exist in a different way from the sense-data, in a way which is "independent of us and our perceptions" (p. 42). Science assumes that the knowable properties of these "physical objects" are "position in, space and the power of motion according to the laws of motion" (p. 44). The "sense-data" that partly depend on these properties may be quite different from them, *e.g.* "light" is quite different from "wave-motion". Mr. Russell goes on (p. 48): "If, as science and common-sense assume, there is one public all-embracing physical space in which physical objects are, the relative positions of physical objects in physical space must *more or less correspond*[1] to the realtive positions of sense-data in our private spaces. *There is no difficulty in supposing this to be the case.*"[1]

What does *more or less correspond* imply? If it simply means that there must be *something* over and above private perceptions corresponding *in some way* to what we represent to ourselves as "space," then, no doubt, most of us would feel no difficulty in the supposition. But if it means (see p. 49 and p. 152 ff.) that this "*something*" must necessarily have

[1] Italics mine.

"*spatial*[1] relations" as we conceive space when we allow for an observer like one of ourselves, and yet exist in complete abstraction from any such observer, then the ordinary student feels countless difficulties and much desires further light. Mr. Russell touches on one of these (p. 47) when he points out that the apparent shape of a thing differs according to the point of view of the observer. He adds "the space of science, therefore, though *connected*[1] with the spaces we see and feel, is not identical with them, and the manner of its connexion requires investigation".

I should like to press this need.

If the particular shape depends on the point of view of the observer and there *is* no observer, then there is no particular shape, and what is a shape that is no shape in particular? Or, to take the general relation of right and left, is not the direction of this relation determined in private space by the point of view of the observer, and does it not differ with different observers? (A and B stand opposite each other and an object on A's right is on B's left.) What is to determine the direction in public space if there is no observer? And in what sense are we justified in talking of a direction the direction of which is not and cannot be determined? One might answer, perhaps, that "the direction" is such that *if* there were an observer it could be determined: but does that really get us any further? Does it not come back to saying simply that the "physical" relation is *in some way* the foundation of ours?

So far as I can see that the argument has gone, the relations that maintain in the space of science, the public space, might be no more like *our* spatial relations than wave-motion is like light.

Mr. Russell seems to suggest (pp. 49, 50) that we cannot answer the ultimate questions about physical space and yet can be practically certain that we know the relations which maintain in it and which are the foundation of our private space-relations. "We can know the relations required to preserve the correspondence with sense-data, but we cannot know the nature of the terms between which the relations hold" (p. 50). In this passage "*know*," I take it, ought not to mean more than "infer with a reasonable degree of probability," and if it only means this, I cannot see that we are justified in ruling out further "knowledge" about the nature of the terms between which the relations hold. And in face of the notorious difficulties about "the continuum,"

[1] Italics original.

"Achilles and the tortoise," etc., it is hard to see how it can be denied that until such further knowledge is obtained the first must be felt to be very insecure. The trouble for the ordinary student is this: the mathematical conceptions of space seem to imply either that along these lines no ultimate explanation is conceivable, or to offer an explanation too paradoxical for acceptance. Therefore the inquirer remains haunted by the suspicion that there is more in space and space-relations than a merely mathematical conception *as such* can supply, and he wants to get hold of that "more," and cannot be satisfied until he has, and until he sees how it could be connected with the mathematical conceptions themselves.

§ 2. *Berkeley, Sense-data and the Mind* (pp. 64 ff.).—"Berkeley was right in treating the sense-data which constitute our perception of the tree as more or less subjective, in the sense that they depend upon us as much as upon the tree, and would not exist if the tree were not being perceived." Mr. Russell in criticising Berkeley's inferences from this makes the important point that this does not suffice to establish that *whatever* can be immediately known *must* be in a mind, and he draws a very useful distinction between the mental act of apprehension and the thing apprehended, which need not, so far as the argument has gone, be conceived in every case as mental. But Mr. Russell goes on (p. 65) to ask concerning such a thing as the colour of his table: "Is there any reason to suppose that the thing apprehended is in any sense mental?" He evidently means the answer to be "No," but I should have thought that on his own showing the answer in this case ought certainly to be "Yes": that the thing apprehended was certainly in one sense mental, the sense relevant, namely that the colour, as a colour, "depends on him as much as on the table and would not exist if the table were not being perceived"

§ 3. *Direct Perception and the Object of Knowledge* (chap. v.).—Mr. Russell uses the convenient phrases: (*a*) "Knowledge by acquaintance," and (*b*) "Knowledge by description"

(*a*) "Knowledge by acquaintance" stands for the knowledge of anything "of which we are directly aware, without the intermediary of any process of inference or any knowledge of truths" (p. 73).

(*b*) "Knowledge by description" stands for that knowledge where we are not directly acquainted with the object but "know truths connecting it with things with which we have acquaintance" (p. 74). Among such objects would be "physical objects (as opposed to sense-data)" and "other

people's minds" (p. 81). He adds (p. 84) that "the thought in the mind of a person using a proper name can generally only be expressed explicitly if we replace the proper name by a description". For instance, when we make a statement about Bismarck, we intend and would like to make it about Bismarck himself, an object with which, however, we are not "acquainted". But, Mr. Russell states, although we are not acquainted with it, we know there is such an entity (p. 89): "we know that there is an object B, called Bismarck, and that B was an astute diplomatist". I should have thought, so far as the argument has gone, that it was safer to say only "we have good reason for believing": but what I find most difficulty in is the "fundamental principle" given immediately afterwards on page 91: "Every proposition which we can understand is composed wholly of constituents with which we are acquainted". Unless "understand" is used in a special sense,—*e.g.* to mean "grasp *all* the bearings and implications of"—I do not see how to reconcile this with the preceding (p. 89). In the ordinary sense of the word "understand," *i.e.* "attach a recognisable meaning to," I should have thought it was quite clear that we *did* "understand" the proposition about the real Bismarck, and further that the real Bismarck was a constituent of that proposition. I suppose this opinion of mine would involve the belief that something would be "before our minds" (p. 90) with which we were not acquainted, but I do not see that this need be an insoluble difficulty (although I admit that I do not fully understand in what sense exactly it would be "before the mind"). In fact I should like to think such a belief was true, because it looks as though it might lead on to the view that the mind of man had a real hold on everything which it can think of,—on the entire universe indeed, seeing it can think of that,—and that this "hold" was capable of developing into articulate knowledge. Plato in the Theætetus seems to suggest something of the kind. But, however that may be, whenever in daily intercourse we want or intend to make a statement about an actual person, say Julius Cæsar or Bismarck, I cannot see that it helps matters at all to say that the real statement means something involving instead of Julius Cæsar (or Bismarck)—"some description of him which is composed wholly of particulars and universals with which we are acquainted" (p. 91). Because after all the essential part of the description is that it is "*of him*," *i.e. refers to* that object with which we are *not* acquainted but in which we *are* interested. It is that reference which

seems to me not only a constituent, but an essential one, in the judgment.

§ 4. *The Principle of Induction.*—This is formulated by Mr. Russell so as to allow for induction straight from particulars to particular, as well as from particulars to a general rule, *e.g.* (p. 103):—

"When a thing of a certain sort A has been found to be associated with a thing of a certain other sort B, and has never been found dissociated from a thing of the sort B, the greater the number of cases in which A and B have been associated, the greater is the probability that they will be associated in a fresh case in which one of them is known to be present".

Mr Russell says,—and I am entirely prepared to accept it, so far as the principle *thus stated* is concerned,—that "the probability of the general law is obviously less than the probability of the particular case, since if the general law is true, the particular case must also be true, whereas the particular case may be true without the general law being true" (p. 104).

But later on (p. 124) he infers from this that it is better to argue "A, B, C are mortal, therefore Socrates is mortal" than to go the roundabout way—

"All men are mortal.
Socrates is a man.
∴ Socrates is mortal".

Now the point I wish to raise is this:—

The inductive principle as stated does not seem to me, *taken alone*, to be self-evident at all. It would, on the other hand, be self-evident, *on the supposition* that there really is an intelligible essential connexion, ultimately discoverable though as yet undiscovered (see p. 166) between certain characteristics ("universals") connected with the cases in question. *If* there is such a connexion, then the one characteristic will always be accompanied by the other, and if so, then it is evident that the inductive principle is a good rough guide to the discovery: otherwise I do not see its logical justification.

This appears to be the way Aristotle conceived the matter, and the form of the syllogism was designed by him to bring out this point. I mean that, for example, we believe that Socrates dies, not because he is *Socrates*, but because he is a *man:* we believe that there *is* some connexion between the universal "man" and the universal "mortal". At the same time I quite agree with Mr. Russell that we do not see what

it is. But is it not the aim of science and of every-day inquiry alike to get on the tracks of some such connexion? Let me take Mr. Russell's witty instance of the man who has fed the chicken every day and at last wrings its neck instead, "showing that more refined views as to the uniformity of nature would have been useful to the chicken" (p. 98).

The refined views, it seems to me, would have shown the chicken that two syllogisms were formally possible:—

"All men with a disinterested love for chickens will feed them daily.
This man has a disinterested love for chickens.
∴ This man will feed them daily."

"All men who want to eat chickens will feed them daily.
This man wants to eat chickens.
∴ This man will feed them daily."

The point for the chicken was to look for something that would show which of these syllogisms was appropriate to the case in hand.

It is the search for a true "middle term," in Aristotelian phrase, for the true connexion between universals relative to the case in point, that is the vital matter. And this point seems altogether obscured if we pass straight from particulars to particular.

This question, I imagine, is closely connected with Hegel's "transition" from the categories of the syllogism to the conception of a self-differentiating Notion, a Notion accompanied by subordinate Notions, "the connexion between the first Notion and its subordinates being intrinsic" (McTaggart: *A Commentary on Hegel's Logic*, § 231).

§ 5. *The Doctrine of Universals.*—This is one of the most interesting, and most difficult, theories in the book.

There seem to be two senses in which the word "universal" is used, and I am not sure of the connexion between them.

(1) "Universality" may denote what I might call, perhaps, for want of a better word, "predicability": I mean the fact of being a characteristic that can be conceived as predicable of one particular thing or more.

This sense seems to follow from pages 143, 145, and from the distinction suggested there between certain things which are *not* universals, *e.g.*, particular sense-data as particular, individual human beings, moments of time, etc., and in opposition to these, those general characteristics represented by substantives other than proper names, adjectives, prepositions, and verbs, all of which *are* universals.

I feel this a very important distinction, and I am quite prepared to hold that no knowledge is possible without "universals" in this sense, but my trouble is that I do not see the connexion of this meaning with the other, *viz.*,—

(2) "Universality" as implying that the thing in question can be an *object of thought* and can be thought of by two different men and by the same man twice (p. 155).

For I should have thought that *in this sense* moments of time, particular sense-data, and individual personalities were themselves capable of being "universals," capable of being objects of thought in themselves *over and above* the characteristics by which we mark them out, though I am prepared to believe *not without* those characteristics.

It seems quite possible for me to think twice of the particular moment of my waking on June 4, 1909, and for another person to think of it also. When we hang a man, surely we hang *him* and not his general characteristics only, and it may be presumed that we think about him when we do it,—certainly we ought to.[1]

Even to discuss a particular sense-datum *as a particular* seems to me to imply that it is even as such an object of thought. I imagine it would follow from this that our sense-data after all may not be quite so private as we thought—(nor yet our personalities nor our moments of time)—that there may be something in them that is *communicable*, but there might be no reason to object to that. We might agree that "one man's act of thought is necessarily a different thing from another man's" (p. 155), and yet see no reason to deny that there was also an element of identity between them.

Again, it is said that "all mental facts" and "all facts concerning sense-data" have a certain "privacy" (p. 213), in the sense that no one can be acquainted with them except the person who has them. Universals, on the contrary, are said not to have this privacy, "many minds may be acquainted with the same universals". Now some of the universals in question, *e.g.*, *whiteness*, we become acquainted with (pp. 158, 159) simply by abstracting from our sense-data, *e.g.*, from many impressions of *white*. How then do we attain to this element of "universal acquaintability" if it was not already present somehow in the sense-data themselves? I should have thought that my conception of the "universal" *whiteness*, and my perception of the particular "sense-datum" *white* were, so far as communicability goes, on essentially the same footing.

[1] See § 3, *Direct Perception of the Object of Knowledge.*

I do not see how I can be absolutely certain that my "whiteness" even resembles another's "whiteness" any more than that my particular sensation of "white" even resembles his particular sensation of "white," but unless I assume in both cases that there is *some* "object," *some* common element, over and above *my* sensation and conception merely taken as such, yet which is latent in such, I do not see how communication is to be held possible at all.

§ 6. *Hypothetical Knowledge à priori.*—On page 117 it seems to be stated clearly that, although the knowledge that anything exists can only be attained by experience, hypothetical knowledge *concerning* existence *is* attainable *à priori*: "it tells us that *if* one thing exists another must exist, or more generally that if one thing is true, another is true".[1]

Again on page 132 it is said "we do not know who will be the inhabitants of London a hundred years hence: but we know that any two of them and any other two of them will make four of them".

The matter is of the highest importance, because, as Mr. Russell points out, the acceptance of this position seems to imply that we are "able to know some truths in advance about particular things of which we have as yet no experience" (p. 131), and in this sense to "anticipate experience". But later on (pp. 162 ff.) Mr. Russell seems to consider this implication not justified, and I want to know if I have understood him correctly. He seems to hold that although we can have *à priori* knowledge about the *properties* of particulars—("universals")—we cannot have it about the particulars themselves.

Now I should be quite prepared to agree that we cannot have *à priori* knowledge *involving the categorical assertion of existence* about particulars, but I find it very hard to admit that we cannot have *à priori hypothetical* knowledge about them, or that such "knowledge" is not, so far as it goes, knowledge. In short although I should agree that the *à priori* knowledge involved in our general statement about two and two being four "does not itself assert or imply that there are such particular couples" (p. 164), I yet find it very hard to admit that "our knowledge" thus fails to make "*any statement whatever* about any actual particular couple".[2]

I should have thought that although no *categorical* statement was implied, yet a *hypothetical* one was, and a hypothetical statement is still a statement. The possible, I should have thought, must somehow include all and any of the

[1] Italics original. [2] Italics mine.

actual, and the general statement must involve statements about all the possible.

I imagine, and evidently Mr. Russell agrees, that this way of putting the matter involves the belief that we could have valid thought about something (here the particulars in question) with which we are not acquainted.

Mr. Russell objects to this,—and perhaps the objection is the foundation of his theory in this chapter,—but, as I said above (see the paragraph on Direct Perception and the Object of Knowledge) I find it much more difficult to deny it than to accept it. It may indicate a mysterious ultimate union between Thought, Being, and Existence, but that might in the end prove very satisfactory.

In conclusion, to put it in concrete form, as Mr. Russell does, I find it very hard to accept the statement (p. 165) that, although "we know *à priori* that two things and two other things make four things," "we do *not* know *à priori* that if Brown and Jones are two and Robinson and Smith are two then Brown and Jones and Robinson and Smith are four The reason is that this proposition cannot be understood at all, unless unless we know that there are such people as Brown and Jones and Robinson and Smith, and this we can only know from experience."

7. *Self-evidence* (chap. xi. pp. 178 ff.).—In the first instance two kinds of self-evidence are distinguished, both concerning truths of sense-perception.

(1) The kind which "simply asserts the *existence* of the sense-datum, without in any way analysing it. We see a patch of red, and we judge 'there is such-and-such a patch of red,' or more strictly 'there is that'" (p. 179).

Now I want to ask, does this "truth" differ except *formally* from the sense-datum on which it is based?

If it in *no* way involves analysis I should think it did not. But does it in no way involve analysis? Is it clear that there is not, after all, a certain amount of analysis necessary even for the minimum "there is that," namely, the amount involved in marking it off from other sensations before, after, or along with it? Could we recognise it even as a "that" without so much analysis as this?

Even waiving this point I feel a great difficulty in the doctrine (p. 225, cp. p. 73) that theoretically we can have complete knowledge of a thing by acquaintance without knowing *any* propositions about it. Surely we must at least know that "something is there": or does Mr. Russell only mean any *other* proposition than this? If he means strictly no proposition at all, is not this knowledge of sense-

data by acquaintance an entirely dumb thing which can give no account of itself? And ought so queer a kind of knowledge as that to be called knowledge at all? This "knowledge by acquaintance" seems to come very near to F. H. Bradley's conception of "Feeling," so far as I grasp the latter, but then Bradley, as I understand, thinks that it is exactly this unsatisfactory character of Feeling that drives the mind on to real knowledge. Of course this is a vital point, and bound up, perhaps, with the heart of the Hegelian position (p. 225). As I understand Hegel, such "acquaintance" could not *be* acquaintance until it could give an account, an ultimately coherent account, of itself. To begin this it would have to make at least one proposition, and to understand that proposition fully would lead it on to the whole set.

Returning to the chapter immediately before us (c. xi.) we find a second sort of self-evidence [1] where—

(2) "The object of sense is complex, and we subject it to some degree of analysis. If, for instance, we see a *round* patch of red, we may judge 'that patch of red is round'" (p. 179). Mr. Russell points out that here we have "a single sense-datum which has both colour and shape". "Our judgment analyses the datum into colour and shape and then re-combines them by stating that the red colour is round in shape." He goes on to point out that here, and, to give another example, in the judgment—"this is to the right of that," where "this" and "that" are seen simultaneously—"the sense-datum contains constituents which have some relation to each other and the judgment asserts that these constituents have this relation".

From the passage closing the chapter (pp. 183-185) it would appear that he considers all such truths of perception as these —*i.e.*, I take it, wherever the mind is faced with a single sense-datum (simple or complex, analysed or unanalysed) and does not go beyond the sense-datum—possess that "very highest degree of self-evidence" which implies "absolute certainty".

Now in such judgments it seems natural to say that the mind *believes* the judgment it makes. But I am not sure if Mr. Russell would allow this or not. He speaks, it is true, (p. 195) of "*judging* or *believing*" as though they implied each

[1] Mr. Russell says—"perhaps in the last analysis the two kinds"—of self-evident truths of perception—"may coalesce"—and I would much like his own commentary on that statement, making it plain whether he thinks the first ought to be reduced to the second or the second to the first.

other. But on page 193 he seems to rule out from beliefs those cases where there is "a relation of the mind to a single object which could be said to be what is believed". His reason for doing this is the necessity of allowing for falsehood, because "if belief were so regarded"—*i.e.* as a relation to a single object—"we should find that, like acquaintance, it would . . . have to be always true". And obviously there are some false beliefs. Certainly I should quite agree, for the reason given, that it would not do to *limit* belief to cases where the mind was related to a single object, but, unless there are *some* such beliefs, or unless we can make true judgments *without* belief, how can we talk of such "truths of perception" as those of the first type given on page 179, where the mind is faced with a single "sense-datum"? For the rest I cannot see that there is any reason to object to the existence of certain beliefs which cannot be mistaken, *e.g.*, where the judgments do not go beyond the sense-data.

The last thing I want to do is to cavil over a verbal point, but I want to know exactly where Mr. Russell places the first type of judgments given on page 179, whether he would only refuse the term "beliefs" to them because they are so-to-speak, *above* mere belief—being certain—or whether he thinks in the last resort they would turn out to be cases where the object of belief is complex.

This brings me to the second type of judgments given on page 179, and for these also, as I mentioned, certainty seems sometimes to be claimed (pp. 183-185). But later on this certainty appears illusory: for it seems we never can know when we have got it (pp. 210-214).

What might be called the "formal condition" of infallibility is given, so far as I understand, in the paragraph where two ways of knowing any fact are distinguished, *viz.*:—

(1) "by means of a judgment, in which its several parts are judged to be related as in fact they are related;

(2) by means of *acquaintance* with the complex fact itself, which may (in a large sense) be called perception, though it is by no means confined to objects of the senses" (p. 211).

Now, "the first way," it is said, "like all judgment, is liable to error". But "the second way gives us the complex whole," and the conclusion is drawn that "a truth is self-evident, in the first and most absolute sense, when we have acquaintance with the fact which corresponds to the truth" (p. 212).

This is promising, but on page 214 a great difficulty

appears. I do not see what use the self-evidence of the truth is to us unless we can know that we have got it, and I do not see how we can know this unless we know that we have the acquaintance which would ensure it, or know that unless we can be certain of the correctness of *some* judgment based on that acquaintance. Now this is exactly what Mr. Russell here says we cannot be. "Suppose we first perceive the sun shining, which is a complex fact, and thence proceed to make the judgment 'the sun is shining'. In passing from the perception to the judgment, it is necessary to analyse the given complex fact: we have to separate out 'the sun' and 'shining' as constituents of the fact. In this process it is possible to commit an error; hence even where a *fact* has the first or absolute kind of self-evidence, a judgment believed to correspond to the fact is not absolutely infallible."

What I want to arrive at is this: Does Mr. Russell believe that any truth or judgment whatsoever (implying analysis or not) that is based on sense-data and confined to them is certain or not? If not, what basis for truth have we here? And in connexion with this, another question: Does he believe that *any* judgments whatsoever are certain? I find his statements somewhat conflicting (*e.g.* pp. 112, 187, 210, 217): and if *no* judgment at all is certain I hardly see how we can talk about truth at all.

§ 8. *Arithmetic and the Universe.*

"All arithmetic can be deduced from the general principles of logic."

This is not developed here, but there is a point involved that seems so interesting I would like to set it down. In Mr. Whitehead's little book on Mathematics ("Home Univ. Series") the same position is taken and put evenmore strongly: *viz.*, that Arithmetic and generally all Mathematics, deals with the most general and abstract qualities of things, qualities that are shared by *all* things. Now in the development of Algebra, which appears as only a more convenient system of Arithmetic, handling in a more compact form the same subject-matter, certain symbols appear, *e.g.* $\sqrt{-2}$, which seem to have no significance so long as we consider things from the mere standpoint of number *irrespective of direction*. But Mr. Whitehead points out that these symbols have a significance, and are useful, if we introduce the idea of *direction*, right, left, up, down.

If this is so we seem to be faced with an important alternative. Either we have to recede from the position that Arithmetic and Algebra deal with the most general qualities

of *all* things, or we have to admit that *direction* in some sense is an inherent constituent of all things: that although when we began investigating the subject we thought that mere Number as such was all that concerned us we found that really we were concerned with a great deal more. This certainly reminds one of Hegel's transition from the conceptions of One and Many to the conceptions of Quantity, though I am not sufficiently well-read in Hegel to be sure if such was his idea. (And in this connexion I should like to ask what, if anything, might be conceived to distinguish direction *in space* from other direction, and whether Direction and Number together would not also imply Amount?) There can be no doubt that it is fascinating to the imagination, this idea that the multiplication-table might conceivably hold the secrets of the universe, and that the Eternal having once uttered the rash remark that two and two make four, was committed to the creation of the world. But I am well aware that from first to last I have been speaking of things too high for me; which I understand not.

IV.—JAMES, BERGSON, AND TRADITIONAL METAPHYSICS.

By Horace M. Kallen.

I.

Three qualities mark off the metaphysic of tradition from radical empiricism. The first is its love of "wholeness," with the consequences of system-building, of the reconstruction of the variety and multitudinousness of experience from a few ultimate elements considered precious, and therefore primordial and pervasive. The second is the designation of all things which are composed of these elements or are different from them as *appearance*, to be set over against their own *reality*. The third is the assignation to reality of a *compensatory* nature; the assertion of its homogeneity with human nature in such wise that human life and human values are, without any possible risk, by it somehow conserved for ever. Not all these traits appear simultaneously in each traditional system. Some emphasise one, some another, but all in the long run, from Platonism to epistemological Absolutism, are coloured by them.

Bergson's philosophy is so even more, for he seeks to combine all three, and his views, as we shall see, show in metaphysics, even as in epistemology, significant similitudes with great systems in the tradition,—with, for example, that of Plato, and that of Spinoza. He does offer, it is true, profound and elaborate criticisms of these thinkers,[1] but these criticisms apply rather to generalities of emphasis and to certain verbal differences, than to the concrete detail of vision and the constructive development of reality from within. In these matters Bergson, at least in *Creative Evolution*, is far closer to Plato and to Spinoza than he is to William James. For both these older philosophers the daily life is appearance and not reality. For both of them this appearance arises through the *individuation* of the

[1] *Cf. Creative Evolution*, pp. 275-370; Tr. Mitchell.

primal reality—according to Plato, through the action of the Idea conceived not as a form, but as a *power*, on non-being, or *space* (χώρα), so that, though in itself one, it is none the less a heterogeneous multiplicity;[1] according to Spinoza,

[1] Bergson's fundamental objection to the theory of Ideas is that it involves the assumption that though the Idea is inert and motionless, it contains more than the moving. To introduce motion, therefore, something negative, a non-being, is required, and this degrades the Idea into all its appearances, multiplies it in space and in time. This objection, which may, as we shall see, be urged with equal force against the *élan vital*, is based on a traditional but none the less erroneous conception of the Platonic Idea. The error derives partly from the mythological manner and poetic vagaries of Plato, partly from Plato's natural tendency in which Bergson participates, toward hypostasis. So that he often seems to deal with Ideas as if they were supersensible and inert essences, the models for all existences in space. But nobody who counts with the great critical dialogues, the *Parmenides* and the *Theætetus*, so sceptical and negative in their outcome, can persist in the notion that the hypostasis is Plato's real intention. These dialogues, as Campbell and Jackson have clearly demonstrated, came in the middle of Plato's career, between the greater Socratic dialogues, notably the *Republic*, and the later Platonic ones, the *Philebus*, the *Timæus*, the *Critias*, the *Laws*. The doctrine of Ideas in the *Republic* is distinguished by the elaborate mythologic form in which it is set forth; but the *Republic* is fairly rigorous beside the *Timæus*. It is hardly likely that Plato recanted and then recanted his recantation between the writing of the *Republic* and the writing of the *Timæus*. There can scarcely have been any contradiction, in Plato's own mind, between the theory set forth in the *Parmenides* and that in the other dialogues. If now we take those to be poetic expressions of the theory in the *Parmenides*, what is the nature of the Ideas?

To begin with, the Ideas are dynamic forces, a congeries of possible being, having actual existence and leading matter on, shaping it, organising it. They appear most clearly in *action*. In the tenth book of the *Republic*, Plato tells us that it is the *user* of the flute who knows the real flute. "The flute-player will tell the flute-maker which of his flutes is satisfactory to the performer; he will tell him how he ought to make them, and the other will attend to his instruction." Generically, "the excellence or beauty or truth of every structure, animate or inanimate, and of every action of man, is relative to the use for which nature or the artist has intended them". This use or function is the idea, one, indivisible, simple, the definitive form of every material organisation that expresses it or brings it about.

In the second place, its activity, taken in and by itself, is of the durational sort, and is truly creative. In terms of the myth of the *Timæus*, the goodness of God overflows spontaneously, without requiring the shock of non-being or space (χώρα). The latter does not degrade the Idea from its "eternity". Its *rôle* is identical with that of space in Bergson's system: it individuates and multiplies. It gives rise to Time—"the moving image of eternity," as a spatialised version of the non-spatial activity. But, although appearing in this spatio-temporal multiplicity, the Idea, as the *Parmenides* points out, cannot itself be resident in nor divided among the things whose function it is, since if it were, it could have neither unity nor functional character, *i.e.* it could not be Idea. Hence it could be neither the bond between two

through the diversification of substance, because of the

similars, such as the eye of the Pecten Mollusc and the eye of the vertebrate, nor that unity which illuminates and accounts for the variety of the particulars. It is not a concept—*i.e.* a static form—yet it is what the mind knows in arresting particulars, since otherwise the knowledge of it would be irrelevant to these particulars.

Such then is the Idea, considered rigorously and not poetically. So considered, its resemblance to the *elan* in nature and in its relations to matter is extraordinarily striking. We may note, before comparing the two in detail, that in this form the Idea is not finalistic. It is a *function*, but it is a function that serves nothing external to itself. That it is not mechanical need not be argued. So that in its divergence from mechanism, its resemblance to, but non-identity with finalism, it has one of the essential traits of the *élan*. But consider the other traits of the *élan* as Bergson exhibits it in its relations to particulars of existence, *i.e.* the *élan* as the function of seeing in relation to the molluscan and the vertebrate eye.

Since, argues M. Bergson, the Pecten and the vertebrate separate from the parent stem and grow in divergent directions long before the eye makes its appearance, every attempt to account for their identical appearance, by mechanism, finalism, neo-Darwinism, mutationism, neo-Lamarckism, invites monstrous assumptions of practially impossible coincidences of infinite complexity. The quality of the light to which all eyes respond is not, as a physical cause, a sufficient explanation of their organic structure. The eye is more than a physical effect. It solves a problem. It is a photograph which has been turned into a photographic apparatus. The eye makes use of light. The causal relationship, hence, between light and the eye, is that between something which unwinds and releases, and that which is unwound and released. Now the latter is an "*internal activity*," "something quite different from what we call an effort, for never has an effort been known to produce the slightest complication of an organ, and yet an enormous number of complications, all admirably co-ordinated, have been necessary to pass from the pigment-spot of the Infusorian to the eye of the vertebrate. . .. Yet this, like 'hereditary change in a definite direction, which continues to accumulate and add to itself so as to build up a more and more complex machine, must certainly be related to some sort of effort, but to an effort of far greater depth than the individual effort, far more independent of circumstances, an effort common to most representatives of the same species, inherent in the genus they bear rather than in their substance alone, an effort thereby assured of being passed on to their descendants.'

"The *élan*, then, is dynamic, transcends the individuals, yet belongs to all of them. Each of the individuals that participate in it, is infinitely complex. It alone is simple. There is a contrast between the infinite complexity of the organ and the extreme simplicity of the function. . . . The simplicity belongs to the object itself, and the infinite complexity to the views we take in turning round it, to the symbols by which our senses or intellect represents it to us or, more generally, to elements of a *different order*, with which we try to imitate it artificially, but with which it remains incommensurable, being of a different nature." This is almost the very language of Plato. The analogy is, however, profounder still. This different order is materiality. It does not represent means employed but obstacles avoided. "It is a negative rather than a positive reality." By right, the *function* of vision should reveal an infinity of

mind's need of conception, into infinite attributes and modes, which bear the same relation to the *free*, self-*caused*, and self-determining substance, as the experience of the daily life bears to the *élan vital*. Substance, Nature, God, is the same interpenetration of diversities, the same uncompelled *spontaneous activity, natura naturans*. It is an *effect* which is its own *cause;* the self-identity of the different; the simultaneity of the successive; the oneness of the many. It is the force of self-preservation of a God who loves himself with an infinite love. *Natura naturata*, thought, extension, things, are the same mechanical necessities, the same "spatialised sequences" as the daily life. Even the freedom of man has the undetermined self-contained quality of totality which is the central trait of the Bergsonian notion of freedom. There are, of course, the Spinozistic parallelism and eternalism, which at first blush seem antipodal to Bergsonian philosophy. But the antipodation is verbal and not real. The distinctions are conceptual,[1] and the eternalism is the maximal fullness of duration.[2] In point of fact, each mode of substance or individual entity is the interpenetration of the residuum of being, and is a mode, or particular only when its substantial cause is considered as *external* to it, *i.e.* when in the Bergsonian sense, it is spatialised. Conceive it in its fullness, as interpenetrated by the rest and it is substance itself, eternal in the sense of *perduring*, through all its externalisations, just as the Bergsonian *real duration* perdures all its spatialisations. Now even as Spinoza's distinctions between appearance and reality follow from his conception of substance, so do Bergson's from his. The critics of this great and profound thinker have accused him without reason of inconsistency. His premise may be false, but his deductions are not inconsistent. If

things we do not see. It is enchanneled, and the eye represents the channel through which it acts. Its structure conforms to the form of the act, at once expressing and restricting it. The greater the expression, the less the restriction, consequently the difference between the pigment-spot and the vertebrate eye. Both are equally co-ordinated because they are constructed to express the same function, but the function is freest in the vertebrate. Now, how is this function in its relation to the material that it organises different from the Platonic Idea? It isn't. It bears, as a *special* function, even the same relation to "the original impetus of life" as a particular idea bears to the Idea of the good. It is effected in virtue of that impetus. *It is implied therein*, implied because life, like the idea, "is more than anything else a tendency to act on inert matter."

The conclusion is then, that the Idea resembles the *élan* in that it is a unitary force, or dynamic function, acting on inert matter, organising it, getting itself diversely expressed through these organisations, without being itself divided or divisible.

[1] *Cf. Ethica*, Bk. i.

[2] *Cf.* Bergson, *Introduction à la Métaphysique.*

reality is what Bergson thinks it, appearance must be as he describes it. But *is* reality as he thinks it?

II.

M. Bergson has a number of striking phrases by which he designates reality. It is " real or pure duration " (*durée réelle*), it is a formidable thrust (*poussée formidable*); it is the onrush of life (*elan vital*), it is the innermost spirit, it is activity, it is change, it is that of which the flow gives rise to all in experience that lives and changes. But it is not, as it appears in experience, truly itself. It is deflected and distorted by alien and secondary stuff with which it mixes, and which in turn it distorts. This alien or secondary stuff is matter or space, and duration must be extricated from its entanglement before it can be perceived in and by itself. This extrication is what has been accomplished in intuition. Now what is the reality so attained to be *known as ?*

To be concrete, consider the paragraph of the page I have just written. It belongs to the common data of the daily life. It is an appearance of reality—a collection of marks and symbols, themselves spatial forms, spread over the space of the page, and standing for and representing something to which they are somehow allied and which has been the effective cause of this particular spatial complex. This something is the *one* thought which the paragraph expresses, and which you apprehend when you read the signs that compose it. But these signs are not one. The paragraph can be subdivided into sentences, each before and after another, the sentences into words, the words into letters, the letters into smaller shapes or simpler sounds, and so on endlessly. But now the idea which has so spread and ramified by means of symbols and space is not at all a thing in which I feel a definite, exclusive before and after, a diversity of distinct symbols with distinct meanings, having distinct relations to each other. All I feel is *one* meaning. Its *quale* is a definite tendency to write. And as I write, I am not aware of each word before I write it. I do not know what it *will be.* I discover what has become a particular word by the act of writing. The act seems to deposit the word as it moves along, and with each word deposited it has externalised itself more and more in space. It seems like the unrolling of something rolled up, but not the unrolling of a reel, on which one thing is laid *over* the other, but rather the unrolling of a thing all of whose parts are one inside the other, such that, with-

out space, you cannot distinguish part from part, all are so absolutely one. When I read over this paragraph, I recover this unity, but not in its fullness or adequacy. I have to *recompose* it, and I feel it as a thing attained piecemeal, not at one indivisible view. Why? Because the act has been spatialised.

Suppose now we reverse the process, and try to roll up this act which has unrolled itself here, aiming to recover its central, indivisible tension. The mind moves hereupon not from within outward, but from without inward. Read the paragraph over several times. At the first reading, each word, perhaps each letter, stands out in its place, alone, independent, with no clear or intimate relation to the others. At the second, they all seem closer together, the space they cover seems not so great, we say the reading is swifter, we take in a sentence at a time, now, instead of a word at a time. At the third reading, this is still more true. We feel as if we were *skipping* passages, but we know that we are not, because we know that in the end we can reproduce the identical one idea which the paragraph conveys, with all its ramifications and differences, without feeling anything more than the presence of this continuous unvarying ideational impulse. What has happened? The idea has been changed back from a fact into an act, from something *done* into something *doing*. In the repeated readings we have despatialised it. Letters, words, sentences, have, in the mind, become more and more intimate. Instead of empty spaces between them they have touched, then from touching, they have passed into one another, until each has become indiscernible from all and all from each. They have reverted to the status of that pure inward potency of which they were the spatial expression, the material incarnation.

Consider, however, that this impulse, which incarnated itself in the paragraph, is but one of a countless multitude of impulses which move us. Simple as it is beside the words and sentences that express it, it must be taken in and by itself, related to the whole of our lives as words and sentences are related to it. It must be a mere spatialisation of a totality which in itself is not spatial, and which beside it, is one and infinitely complex. Let us, then, withdraw the mind's eye from the details of life in their isolation. Let us bring them together, as we brought together the letters and sentences of our paragraph. They touch, they interpenetrate, they fuse. We behold the fullness of our self-hood, an enduring tension, which ramifies according to need, into memories, emotions, wishes, ideas, into those mental forms

which the psychologist studies singly, but which is in itself all these at one and the same time.

Nor is it alone this indivisible multiplicity. It swells, changes, grows. We feel this swelling, changing, growing within its very heart—an increase without enlargement. How else, and where else, if we abstract space absolutely? For then there is, as there must be, the actual succession of an inner experience, but such succession cannot make a distinction of before and after. A distinction would mean a juxtaposition, however slight, and juxtaposition, involving the mutual externality of the juxtaposed, is spatial. But by hypothesis and by act we have abstracted from space. We confront the innermost essence of mind in its purity. We see that it is labile, that it is pulsation, and that each pulsation as it adds itself to its predecessors, preserves itself without distinguishing itself from them. The innermost life is a solidarity, at once self-identical and changing, "a continuous melody . . . which carries itself on, indivisible from the beginning to the end of our conscious existence".

Now, being innermost, this life cannot help being psychical, but it is not the psyche of consciousness and personality. It is the more primordial spirit of which the consciousness we know is a spatialisation, a segmentation, of which the personality we are aware of is a contraction and restriction. That it is soonest and most readily to be discovered in the profundities of our own spirit is our grace, which makes humanity perhaps more its kin than any other living or moving being, since in man the cosmic spirit has most nearly liberated itself from the trammels of matter. But in point of fact, man is a very limited concretion of it. Intuition reveals spirit as the force and go of all that moves and acts. It and it alone, is the true metaphysical reality.

What, now, are its metaphysical characteristics?

To begin with, it is flux. It is movement and change, and these, as such, are absolutely *indivisible*. To *arrest* either is to destroy it, for it is a transition, not a condition, and can, therefore, never coincide with immobility. It may be imperceptibly brief, it may be long beyond perception, infinitely long. But it cannot be decomposed. Motion is motion and must always be that. To spatialise it is to think it in terms of its opposite, of immobility. To spatialise it is to *contradict its nature*, to destroy its *identity*. That identity may be, it will be seen, a "self-contradictory" reality, but once captured and defined, it must remain unchanged, by the *rules of the logic of identity*, throughout the discussion. To these rules Bergson rigorously adheres, in all his books. Consequently

the life of all existents becomes conceived qualitatively as *one*, and its diversity and immobility become mere appearances. "There are," he writes,[1] "changes, but there are no things that change. Change has no need of a support. There are movements, but there are not necessarily invariable things that move; movement does not imply a something that possesses it" (*mobile*). Immobility is really appearance which the sense of sight deceives us into taking for reality. But physical science assures us that all matter is in fact movements: and a thing's movement is but a movement of movements. It is movement hence, not matter, that is *substance*, and because of its continuity and unity, the world it expresses itself by is maximally substantial and durable. "For if change is real and even constitutive of all reality, *we must think* of the past as persisting unchanged in its entirety in the one indivisible act of change" just as the notes of a melody persist unchanged in the one indivisible melody,[2] or the meanings of the beginning of our paragraph in the one indivisible meaning of the paragraph. Both are change and immutability at once.

Not to believe this is to be illogical, to be subject to a mere philosophical illusion. This is the illusion that real time is decomposable into instants. Such instants are fundamental in mathematics, but mathematics is only a science of space. It requires that any two of them cannot be separated by a time-interval, for time is nothing more than their juxtaposition. But if they are separated by *nothing*, they are *one* and not two. Two mathematical points that touch are confounded one in the other: they interpenetrate and become an identity. Logic, hence, compels the assumption of an "interval of duration". How great this interval shall be is determined only by our capacity for attention. Let the attention expand indefinitely, and it embraces more and more and more of the past. The present, indeed, is merely the field of instant attention. To say that any portion of it is destroyed when it drops from attention would be obviously wrong. It does not cease to exist, but it becomes *past*. The past is that part of the present which the mind *neglects*: when the mind again attends to it, it becomes present. But this present is not a mere simultaneity. It is "something continually present and continually moving," "an enduring present," in which the past stays subconscious, waiting only

[1] *Perception du Changement*, p. 24.

[2] The italics are mine. There is the significant deductive transition in the phrase "we must think," for the necessity is logical only.

on our needs to bring up to consciousness its appropriate part, and surging up in its totality whenever the attention on externals is relaxed, as in the cases of drowning and other forms of *vital crisis* and sudden death. Then the attention turns inward, and one's whole life unrolls before the mind's eye. Logic and experience both thus compel us to believe the past conserves itself automatically, that this self-conservation in the present is cosmic, and that it is nothing else than the indivisibility of change.

But if this is the nature of the cosmos, then, though an infinite deal is continually adding itself to whatever exists, nothing is ever, nor can be, subtracted. The substantiality and durability of the world *are* maximal. Change itself is that hidden substance which philosophers have sought, which flows through the fingers that seek by grasping to arrest it. Perceived in its nakedness, it is neither unstable nor immutable, but the very stuff of duration, at once indivisible and changing. Yet further: that which is *indivisibly* dynamic cannot truly be *differentiated* into cause and effect. Life is a concrete duration, the unity of the past with the present. If it changes, hence, the source of the change is in itself, not in anything external. Cause is *self-caused:* effect is self-effectuation: change is creative growth, neither determined mechanically nor teleologically. Life, perceived in intuition, is *free.* For, if it were not, the indivisibility of change would be destroyed, duration would be spatialised. It would be possible to forecast events infallibly. Determinism is equivalent to this possibility. Yet how is any foretelling whatever possible? Does not the understanding of the true nature of a *cause* require also the perception of its *effect?* And how is the effect to be perceived unless it is already present, and if it is already present, what can be meant by prediction? Actually, in the inwardness of duration, not even action itself can predict. There are multitudes in the realization of an ideal that the ideal has no inkling of. Life, then, eludes prediction. But does it also escape causation? Determinism is not alone the possibility of prediction, it is also the mechanical causal necessity. Can life elude this necessity? Yes, however cause be defined, life can. For intuition shows us life as persistent variation: cause, hence, defined as *unvarying* antecedent of its effect, cannot apply to life. Or take cause as commonsense tends to take it, as a compromise between the *identity* of cause and effect, and heterogeneity of time, of creative activity. Necessity, in that view, is reached by the element of identity, by the repetition of *the same*—the same number, the same quality, the same relation—in the effect. Then, as

cause approaches necessity, it goes farther and farther from true activity, from *duration* and *freedom*, where alone genuine causation exists. There necessity is a pure negation. There the future exists in the present only as a vague possibility. The transition from present to future is seen by intuition to be, first of all, an effort, and secondly, an effort which does not always realize the felt possibility, yet which rests quite complete in whatever future it has brought about. Life is free.

In sum: Ultimate reality is of the same stuff as our inner life, something akin to the will, the *go* of our own existence, which unwinds itself—an enduring act, continuous, indivisible, substantial, creative, free, an act which is the unity and interpenetration of all that lives and moves and has its being, an incessant life which is the concretion of all durations, of all that *apparent* diversity of beings which are materialisations of this same formidable impetus, this *élan* of life, which is their unshatterable and persistent substance.

Such, then, is the fundamental reality which intuition reveals. How different in character and direction from the reality of the daily life, with its numerous individuals, its unchanging solids, its immutable concepts, its many checks and defeats, its few successes! Could, indeed, so perfect a thing as the *élan vital* give rise to so imperfect a thing as conscious experience? Never, of itself. The ordinary world of men and things is a degradation of the *élan*. It is the disruption of its unity by means of the shock of space and matter. These are the enemy, these are the evil principle, and of the war of these with the life-force worlds are born.

What are they? How are they known? The more fundamental one is *space*. This Bergson assumes, but whether as the metaphysical peer of *pure duration*, or something secondary and inferior, one may not absolutely say. In his earlier thinking, the notion appears that space is a Kantian form of intuition and has no reality apart from the mind that thinks it. "We have assumed," he writes in *Time and Freewill*, "the existence of a homogeneous space, and with Kant, distinguished this space from the matter that fills it. With him we have admitted that homogeneous space is a form of our sensibility." It is an "infinitely fine network which we stretch beneath material continuity in order to make ourselves masters of it, to decompose it according to the plan of our activities and need". And this notion occurs again and again, but less explicitly stated in his later work. Space, in *Matter and Memory*, is called a "diagrammatic design of our eventual action on matter". And in *Creative Evolution*

it is more than once designated as the practical form of our intelligent action on things. From this point of view, it is not a secondary thing, but a tertiary one, arising after a creature having need of it has been created by the evolutionary action of duration. But this view of space is incidental to the exigencies of exposition. It is not compelled by the demands of Bergson's first indefinable, *pure duration.* That requires, over against it, if it is to be a factor in accounting for the course and character of experience, something with which it may combine, on which it may act. This something need not be so real as that is, it may be metaphysically secondary, an inversion, but it must be opposite. Such an opposite is space. "There is a real space, without duration . . . and a real duration, the heterogeneous moments of which interpenetrate." Space is the inversion of duration. Duration is interpenetration, the psychical organisation of heterogeneous qualities that are immanently successive one to another. Space is juxtaposition, the simultaneous externality of homogeneous points, whose essential character is quantitative, not qualitative, an empty and uniform medium which is self-sufficient, void of every quality, amorphous, inert, but a "reality as solid as sensations themselves, but of a different order". Consequently space is a thing outside ourselves, "a mutual externality without succession," but an absolute reality, on which we act (which must be real therefore, since it is impossible for action to move in the unreal) and which we can and do know in its absoluteness by means of mathematics.

But mathematics, absolute, real—are not these contradictory terms? They would be, if they were not discoverable in the same intuition that reveals real duration. The only difference is that the *direction* of the intuition must be changed. Consider again the intuition of any paragraph of this chapter. Its psychic purity is attained by the incessant accumulation and interpenetration of its details. What dilutes this purity? The fact that in expression, these details, instead of being an unchanging, fluid, tensive unity, become *external* to one another. This externalisation is *dissipation.*[1] Instead of there being, from moment to moment, *more* than there was before, there is from moment to moment less. The force spreads, dissipates, tends to cease. If it could cease utterly and absolutely, it would be indistinguishable from space: extension is detension. That, however, does not happen. The written or spoken paragraph is not pure space.

[1] *Cf. Creative Evolution,* pp. 249-259.

It is matter. Matter is disintegrating spirit, spirit running down, on the way to space.[1] Spirit absolutely run down would have become its opposite, space. Space gathered up, interpenetrate, might possibly be spirit. Consequently behind these two "absolutes," "duration" and "space," which are inversions of one another, opposite orders, interfering with another in such a way that the absence of one means the presence of its opposite, there is a unity "vaster and higher" of which these are perhaps complementary differentiations, as instinct and intelligence are of the indivisible life of man. And between these two poles of the utterly transcendent and barely suggested unity of which they are differentiations lies matter, just as real as they, to be known immediately and directly by the same intuitive act, only reversed in its duration, as life "undoing itself," an absolute reality which physics studies and reveals, a thing no more than "pure duration ballasted by geometry" and partaking of the nature of both. But the intuitive act reversed in its direction, is intelligence, conceptualisation, analysis. The ultimate province of the intellect, hence, is pure space. Its ultimate form is geometry. And intermediate between the intuition of life and the intuition of space lies the intuition of matter. This is attained in "pure perception" and in the mutually external categories and forms of the understanding, in concepts, which are static, isolate, cinematographic snapshots of the flux, catching its externalisations. "In reality, life is a movement, materiality is the inverse movement, and each of these two movements is simple, the matter which forms a world being an undivided flux, and undivided also the life that runs through it, carving out in it living beings all along its track."[2]

Matter, hence, in so far as it implies duration is also a continuum and conterminous with spirit. It involves a *before* and *after*, because it is spatial, but it involves also the linking together of these successive moments of time "by a thread of variable quality which cannot be without some likeness to the continuity of our own consciousness." Matter endures, and is, as enduring, the pure flux of dynamic energy which is the goal of the physicist's researches. But if matter is a continuous flux of energy, it cannot be the collection of the discrete objects of experience to which we formally apply the term. These are tertiary in that they are derivatives of matter. They are the appearance of appearance, and are

[1] M. Bergson regards the second law of thermodynamics as the most metaphysical of all physical laws.

[2] *Creative Evolution*, p. 249.

appearance to appearance. They are the latest events in the cosmic drama whose climax is Man.

The title of this drama is Creative Evolution. Its great protagonists, its hero and villain, when M. Bergson raises the curtain for us, are Pure Duration and Space, Spirit and Matter, *Elan Vital* and Inertia, these complementary and inverse aspects of reality, so essentially like Spinoza's *Cogitatio* and *Extensio*, attributes of *one* substance and in it, identical: so essentially like Plato's *idea* and non-being, absorbable in the Neo-Platonic One. The drama arises out of the inward incompatibility of these two with one another. They cannot live together in democratic amity. The existence of the one involves the mutilation if not the destruction of the other, without concession, without compromise, even in that apparent compromise we call matter. The Life Force, which is consciousness, "need to create," free, spiritual, self-cumulative, is suppressed and constrained by the rigidity and vacuity of space. A force finite and given once for all, but containing within itself numberless potentialities, not unlike Platonic ideas, it cannot freely generate, fulfil, and gather within itself the more that continuously grows in it. For the life-force is a thing that grows by what it feeds on, and it feeds upon itself. Matter hinders and interrupts this creative growth, and it hence becomes the task of the life-force to overcome the checks and hindrances of its opponent, and to convert it from an opponent into a servant. Life succeeds in doing so, but not without a price. It pays for its conquest with its unity. In its contact with matter, life is comparable to an impulsion or an impetus; regarded in itself, it is "an immensity of potentiality, a mutual encroachment of thousands and thousands of tendencies, which nevertheless are thousands and thousands "only when regarded as outside each other, only *i.e.*, when spatialised".[1] It is compelled to divide, to adopt divergent lines of growth, in unforeseeable directions; it is compelled to "insinuate" itself into matter, "to adopt its rhythm" and movement. By so doing, however, it attains its ends. It conquers matter, and by organising, diverts it from its own rigidity to the uses of life. The core of this diversion is the accumulation of stores of energy and their expenditure, "by means of a matter as supple as possible in directions variable and unforeseen' '.

The first act in the conquest of matter, hence, is the evolution of the vegetable. Whatever else life may feed on, its primary and ultimate food is vegetation. "Vegetables

[1] *Creative Evolution*, p. 258.

alone gather in the solar energy and animals do but borrow it from them." By means of the "chlorophyllian function," vegetation uses the solar energy to fix the carbon of carbon dioxide gas, and thereby to store it, to use as need be. But the vegetable is torpid, it is nearer in its action to matter than to the unexpected freedom of life. It cannot both gradually store and suddenly use energy. In the vegetable therefore the struggle between life and matter is something of a draw. Life has gathered up matter, but the gathered matter holds back the gathering life. Life has still not come to its own freedom, into its unobstructed flowing.

The second act is the divergence of organisation under the stress of this tendency toward action in variable and unforeseen directions. Plants went on doing as they always did, but side by side with them, there developed the animal, whose characteristic it is to set free stored-up energy. This act involved many scenes, many more divergences, in not all of which did life conquer matter. "We must take into account retrogressions, arrests, accidents of every kind. And we must remember above all, that each species behaves as if the general movement of life had stopped at it, instead of passing through it. It thinks only of itself, it lives only for itself. Hence the numberless struggles that we behold in nature. Hence, a discord, striking and terrible, but for which the original principle of life must not be held responsible."[1] Alone to the compulsion of matter does the responsibility belong. For life itself is not thinkable either as pure unity or pure multiplicity. It is a One that rejects the category of oneness; many, yet rejecting the category of manyness. It might have been, and would more easily have been, just itself, rather than the diversity of individuals and of societies where struggle for life is that discord "so striking and terrible". But unity and multiplicity as such belong to matter and matter compels it to choose one of the two. Yet its choice will never be definitive, it will leap from one to the other indefinitely.

The mere animal, though more explosive and unaccountable than the plant, is automatic. Its explosions are marked by the absence of variety, by sameness. Spirit is not yet completely liberated. To become so, it needs an organised matter of maximum instability. The making and maintenance of this is the third act of Life's struggle with matter, the climactic act, in which it asserts itself, master of matter at last, by means of the human brain. This differs from

[1] *Creative Evolution*, pp. 254-255.

other brains in that "the number of mechanisms it can set up, and consequently the choice that it gives as to which among them shall be released, is unlimited". The limitlessness makes it differ from other brains not in degree, but in kind.[1] So "with man, consciousness breaks the chain. In man and man alone it sets itself free."[2] His body is his machine which he uses as he pleases. Because of his complex brain with its capacity for opposed motor mechanisms; because of his language with its capacity for incarnating consciousness in an immaterial body; because of his social life with its capacity for storing and preserving effort as language preserves thought, man is free. In him Spirit triumphs completely over Matter, Duration over Space, the Life Force over Inertia. The drama has a happy ending. Seeing the world so, "we feel ourselves no longer isolated in humanity, humanity no longer seems isolated in the nature that it dominates. As the smallest grain of dust is bound up with our entire solar system, drawn along with it in that undivided movement of descent which is materiality itself, so all organised beings, from the humblest to the highest, from the first origins of life to the time in which we are, and in all places as in all times, do but evidence a single impulsion, the inverse of the movement of matter, and in itself indivisible. All the living hold together, and all yield to the same tremendous push. The animal takes its stand on the plant, man bestrides animality, and the whole of humanity, in space and time, is one immense army galloping beside and before and behind each of us in an overwhelming charge able to beat down every resistance and clear the most formidable obstacles, perhaps even death."[3]

III.

There exists in philosophy, writes William James,[4] a "plain alternative. Is the manyness in oneness that indubitably characterises the world we inhabit a property only of the absolute whole of things, so that you must postulate that one-enormous-whole indivisibly as the *prius* of there being any many at all—in other words, start with the rationalistic block-universe, entire, unmitigated, complete?—or can the finite elements have their own aboriginal forms of manyness in oneness, and where they have no immediate oneness still be continued into one another by intermediary terms—each

[1] *Creative Evolution*, p. 263.
[2] *Ibid.*, p. 264.
[3] *Ibid.*, pp. 270-271.
[4] *A Pluralistic Universe*, p. 326

one of these terms being one with its next neighbours, and yet the total 'oneness' never getting absolutely complete?"

Of this alternative, it would seem, Bergson chooses explicitly neither horn. In its intrinsic nature, pure duration is an ineffable *totum simul*, not yet differentiated into the inverse movements of life and matter, and rejecting, like Plotinos' One, the categories of both *oneness* and *manyness*. Implicitly Bergson chooses the former of these alternatives. He observes with James that experience has contradictory aspects, that it possesses both oneness and manyness at the same time. Their co-presence in experience gives rise to innumerable philosophic difficulties, notably the great antinomies which troubled philosophers from Zeno to Kant. How surmount the difficulties, how solve the antinomies? If you study their basis and origin, you observe that they arise from the attempt to explain manyness by oneness and oneness by manyness. Philosophic salvation, then, must lie in a new principle of explanation. What shall it be, and be new? Why, simply rendering to Cæsar that which is Cæsar's and to God that which is God's. No wonder logical puzzles and essential contradictions persist in philosophy. They must, since they are no more than attempts to reconcile the irreconcilable. Segregate these, let each principle account only for itself, and the puzzle disappears. You find, to begin with, the absolute oneness, the undesignable and transcendent unity of life, accounting for motion, action, continuity, for all that has the quality of unity. In the Bergsonian world, the qualitative basis is given *at once*, and whatever comings there are, are somewhat predefined in the "original impetus" and contingent on its material obstacles: "Life does not proceed by the association and addition of elements, but by the dissociation and division"; it is creation that goes on for ever in virtue of an initial movement, which constitutes the unity of the organic world. It is the continuity of a "*single* and *identical* élan" which has split up along the lines of a divergent evolution. It is what is "common" to all divergencies, and these are complements one of the other, in such wise that their very complementariness and harmony contain and presuppose and depend upon an "identity of impulsion". The quoted terms are Bergson's own. On the other hand, you find the absolute manyness, the Bradleyan unrelatable discreteness which is the designable diversity of space, accounting for all that derives from it. And so long as you confine each principle to its own sphere, you get into no difficulties. Seek, however, to take the concrete individuality of experience at its *face-value*, as *manyness-in-oneness*, and

try to explain one by the other—then, presto, all the difficulties reappear. Time, action, life can only explain those things which are identical with them; space, inertness, matter, can explain only those things which are identical with them. Antinomies arise when the explanations offered are transverse. In point of fact they are not alternatives; each member of the pair is valid *in its own field*. If, therefore, the universe seems disorderly, it *seems* so merely. There is no real disorder. There is only the substitution of the spatial for the temporal order, the material for the spiritual, and conversely. Chaos and the void are pseudo-ideas. The realities are spirit and space. Ultimately, of course, these two fields may be derivable from something vaster and higher, a unity which embraces and reconciles both. How, is not written. The course of experience, however, is to be explained by these diverse and opposite principles.

Unity, hence, immediately and ultimately includes for Bergson a one-enormous-whole indivisibly given as the *prius* of the vital or organic many. Diversity, similarly involves an absolutely irreconcilable externality. Both of these are *transcendental* principles and not discoverable as such in the immediacies of experience. Each requires, in order to be perceived, the absoluteness of intuition, the intuition of the spirit, in the one case; of the intellect, in the other. Each is the limit reached by a rigorous application of the identity-logic. There are involved, hence, in the Bergsonian philosophy both the fallacies of traditional metaphysics--the fallacy of composition which is the differentia of empiricism and the fallacy of division which is the differentia of apriorism. Each of these fallacies is a metaphysical dogma—one says that the part has no reality save in terms of the whole; the other says that the whole is nothing more than an aggregate of parts. What is significant is the bond that unites the two and makes them harmonious parts of one identical tradition. This bond is the dogma of the *unreality of relations*. For apriorism, relations have ever been internal, so that the universe was always a block: the whole concentrated in every point. For empiricism, relations have been utterly external, such that the entities or impressions which compose the flux of experience could never touch, never influence each other, never make any real difference to each other. This double status of relations is accepted *in toto* by Bergson. In the *élan*, the interpenetration of the heterogeneous is such that distinctions cannot be made and must hence be artificially supplied by the mind: in space the discreteness is so absolute

that hence nothing happens there unless a mind internalises its contents.[1]

Now, if any one thing more than any other sets James outside the philosophic tradition, and distinguishes radical and immediate empiricism from both the empiricism and the apriorism of tradition, it is his readiness to take relations, conjunctive as well as disjunctive, internal no less than external, at their face value, whenever and wherever they appear. Neither the substantial flux, he points out, interpenetrative to the uttermost, nor yet the discrete space, external to the uttermost, is barren of *conjunctive* relations. Neither one is oppugnant to and completely exclusive of the other. There is not a block of oneness that we call life, and a hegemony of bare homogeneous manyness that we call space, nor yet an ineffable *totum simul* which is yet *not* that (like Plotinos' One) and rejects both categories. There is a *real* combination of manyness and oneness in which the relations that bind, and whose binding makes the oneness, are as immediate data of sense-perception as the terms that are bound; and the relations that distinguish, and whose actions make the manyness, have as legitimate a metaphysical status as the terms that they differentiate. There is no *whole* in which all that is to be is somehow foreshadowed and predetermined: there is no contingency which is merely extra-spiritual and involves no difference in the quality of spirit; there is no necessary conservation of the past. Destruction is as real as creation, contingency is a trait of every entity that exists, and what exists, exists piecemeal, in its own right, and not in terms of a whole, indivisible act which cuts through matter.

The divergence here indicated is so profound that it seems strange that any similarity whatever should exist between these two thinkers, and stranger still that the one should feel himself indebted to the other for anything whatever. But does not, indeed, the existence of such a conjunction amid such diversity constitute a *prima facie* exhibition of the manyness-and-oneness of experience which James points out? We may note that both these thinkers, from the outset, are temporalists; that both are agreed as to the inadequacy of static concepts to act as substitutes for activities, and as to the distortion of reality which arises when concepts are taken as the identical equivalence of things which they represent. Concepts, like the rest of reality, are only self-revealing, and in use they are controllers rather than revealers. But here

[1] *Cf. Creative Evolution*, pp. 147-149, 250, 356, 367-368.

the resemblance stops. The self which concepts reveal is the self-hood of matter and space according to Bergson, and the dimension in which they exist is not the dimension of life at all. They are metaphysically as well as functionally tertiary. Not so for James. Their metaphysical status is not different from that of any other entity: it is their function that is different, and it is the confusion of status with function that is, for James, the source of metaphysical error.

Now, it is with Bergson's treatment of concepts in their relation to activity, movement and life that James is most concerned. What is it that he gains from Bergson? He gains, to begin with, freedom to accept experience at its face value; he gains, in the second place, confirmation that this face-value is not illusory.

The assumption which underlay James's treatment of the greater problems of psychology was the assumption of the dualism of mind and matter. The assumption was methodological, not metaphysical, and the theory of psychophysical parallelism was dirempted at one point by a theory of interaction for which the warrant was empirico-ontologic, rather than a logical deduction from the parallelistic premise. Logic demanded the correlation of brain states with mental states. But whereas brain states might be compounded, mental states could not so be. They were fluid, evanescent, not perdurable, and for each brain state there could be, hence, one and only one mental state. "The so-called mental compounds are simple *psychic reactions of a higher type. The form itself of them . . . is something new.*[1] We can't say that awareness of the alphabet as such is nothing more than twenty-six awarenesses, each of a separate letter; for those are twenty-six distinct awarenesses of single letters *without* others, while their so-called sum is one awareness, of every letter *with* its comrades. There is thus something new in the collective consciousness. It means the same letters, indeed, but it knows them in this novel way. It is safer . . . to treat the consciousness of the alphabet as a twenty-seventh fact, the substitute and not sum of the twenty-six simpler consciousnesses, and to say that while under certain physiological conditions they alone are produced, other, more complex physiological conditions result in its production instead. . . . The higher thoughts . . . are psychic units, not compounds; but for all that, they may know together as a collective multitude the very same objects which under other conditions are known separately by as many simple thoughts.

[1] The italics are mine.

The theory of combination, I was forced to conclude, is thus untenable, being both logically nonsensical and practically unnecessary." [1]

Such is the logical outcome enforced by the assumption of psychophysical parallelism. But this is an outcome which, while true in many instances, flies none the less in the face of the facts in many others. In the physical world, for instance, "we make with impunity the assumption that one and the same material object can figure in an indefinitely large number of different processes at once. An air particle or an ether particle 'compounds' the different directions of movement imprinted on it without obliterating their several individualities. It delivers them distinct, on the contrary, at as many several 'receivers' (ear, eye, or what not) as may be 'tuned' to that effect." [2] Why, distinctly true in physics, should this not also be true in psychology? In the "experience of activity" what is "the true relation of the longer-span to the shorter-span activities"? "When, for example, a number of 'ideas' . . . grow confluent in a larger field of consciousness, do the smaller activities still coexist with the wider activities then experienced by the conscious subject? And, if so, do the wide activities accompany the narrow ones inertly or do they exert control? Or do they perhaps attend, supplant and replace them and short circuit their effects?" [3] Wundt and other psychologists had had the advantage of conceiving the "compounding of consciousness" as analogous to the compounding of matter. They exceeded thereby strict logic, and James was unwilling to commit this excess until he read Bergson. But the theory of consciousness, which Bergson maintains and defends is, significantly enough, exactly that which, because of his reading of Bergson's works, James abandons. The idea of the alphabet is, indeed, for Bergson, a "simple psychic reaction of a higher type" of which "the form itself is something new". It is true that, according to the Bergsonian philosophy, the earlier states are conserved as memory, but not each in its individuality after the analogy of physical motions cited above, but penetrated through and through by all the rest, "every letter with its comrades," the whole heterogeneous unity related *internally*. So that the consciousness of the alphabet *is* a twenty-seventh fact, a psychic unit, not a compound, a thing absolutely new. There can be found in Bergson's notion of compounding nothing analogous to physical compounding of entities to

[1] *A Pluralistic Universe*, pp. 188-189.
[2] *Essays in Radical Empiricism*, pp. 125-126.
[3] *A Pluralistic Universe*, p. 394.

which James has committed himself. Extraordinary and paradoxical! Until the candid reader of James observes that what concerns him in the Bergsonian philosophy is not its conceptions of spirit and of matter, but its critique of intellectualism, its analysis of the relation of concepts to motion, to the continuum, to the perceptual flux. This analysis frees James from the decrees of logic and permits him to accept unequivocally the self-portrayal of immediate experience.

And in all this Bergson is still at the position in psychology that James has abandoned, and where James strikes out toward a neutralistic pluralism and radical empiricism, Bergson erects the methodological assumptions of psychophysics into the ontological dualism of spirit and matter of the philosophic tradition, subdued by the shadow of a Plotinian monism.

IV.

James's acceptance of the principle of compounding in essence identical with that of naturalistic physics completely destroyed for him the barrier between mind and matter, a barrier already considerably broken in the development of his philosophy of pure experience,[1] with its insistence on the experiential reality of relations, and on the metaphysical equality of all experiential entities. It is no more than the acknowledgment of the ontologic validity of the manyness-and-oneness which is the face of experience, and its salvation from the stigma of 'appearance' that tradition, and Bergson with it, tend to attach to it as such. Reality is a compenetration, but not that complete and utter internalisation of qualities which Bergson calls spirit: reality is a multiplicity, yet not that complete and utter externalisation of qualityless points which Bergson calls space and the goal of matter. Here and now, where things happen, in the region of all temporal reality without exception, exists this many-in-one. The oneness is the sensible continuity of the stream of experience. Herein every element is really *next* to its neighbours, every point of flux a conflux, so that there is literally nothing between. The manyness are the elements which exist there, so continuous. "Nothing real is absolutely simple . . . every smallest bit of experience is a *multum in parvo* plurally related, . . . each relation is one aspect, character, or function, way of its being taken or way of its taking something else; and . . . a bit of reality when

[1] *Cf. Essays in Radical Empiricism*, Essays III. and IV.

actually engaged in one of these relations is not *by that very fact* engaged in all the other relations simultaneously. The relations are not all what the French call *solidaires* with one another. Without losing its identity a thing can either take up or drop another thing."[1] This offers us a multitude, a multiverse, "but our multiverse still makes a 'universe,' for every part, though it may not be in actual or immediate connexion, is nevertheless in some possible or mediated connexion, with every other part however remote, through the fact that each part hangs together with its next neighbours in inextricable interfusion. The type of union, it is true, is different from the monistic type of *alleinheit*. It is not a universal co-implication or integration *durcheinander*. It is what I call the strung-along type, the type of continuity, contiguity, or concatenation."[2]

What is remarkable about this statement is the extraordinary sobriety of judgment and clearness of vision so characteristic of James and so apt to cause men of lesser restraint and narrower insight to accuse him of inconsistency. The unity and continuity here described are those of an utter and transitive nextness. It is the exact opposite of Bergson's unity and continuity which is the *solidarity* of compenetrating qualities, a literal integration *durcheinander*. It would seem as if James were logically required to pass from a somewhat similar solidarity in the bits of experience, every portion of which is somehow its own hegelian other, to the similar solidarity of the whole. This is exactly what, under the compulsion of logic, Bergson does. But for James, such a procedure would be a fallacy of composition, and he insists on characterising the larger units of experience as they appear, and on taking them at their face value. He has committed himself to the theory of compounding which Bergson freed him to adopt, *in toto*. The parts do retain their identity and do function in the wholes which they constitute in terms of their own unique natures, and the wholes again do have powers and attributes and efficacies not given to the parts and in no sense foreshadowed in them. Each must be taken in its individual integrity and judged on its own showing. The *happenings*, hence, which constitute temporal reality, are not one *happening*, unique, indivisible, concrete, substantial, they are truly *plural* and truly *discrete*. Inwardly complex and interpenetrative, with "rearward and forward looking ends," they are outwardly just *next* each other, and their overflowing at their edges is not through

[1] *A Pluralistic Universe*, pp. 322-323. [2] *Ibid.*, p. 325.

and through. The relations that bind are external, as well as internal.

Consequently, while each *pulse* of experience is an interpenetrative unity of past and present, a *passing* moment, it is only *next* its fellows and not absolutely in them. Reality is discrete and grows by drops. "If a bottle had to be emptied by an infinite number of successive decrements, it is mathematically impossible that the emptying should ever positively terminate. In point of fact, however, bottles and coffee-pots empty themselves by an finite number of decrements, each of definite amount. Either a whole drop emerges or nothing emerges from the spout. If all change went thus dropwise, so to speak, *if real time spouted or grew by units of duration of determinate amount*,[1] just as our perceptions of it grew by pulses, there would be no Zenonian paradoxes or Kantian antinomies to trouble us. All our sensible experiences, as we get them immediately, do thus change by discrete pulses of perception, each of which keeps us saying 'more, more, more,' or 'less, less, less,' as the definite increments or diminutions make themselves felt." [2]

But is not the continuity of a reality so describable really discontinuity? Yes, but only in logic, not in fact. The discontinuity is consonant with "the radically pluralist, empircist, perceptualist position," and James "adopts it in principle," qualifying it, however, so as "to fit it closely to perceptual experience".[3] The principle is that reality changes by steps finite in number and discrete. The qualification is that such changing involves not an intrinsic but a superimposed mathematico-logical discontinuity. "The mathematical definition of continuous quantity as 'that between any two elements or terms of which there is another term' is directly opposed to the more empirical or perceptual notion that anything is continuous when its parts appear as immediate next neighbours, with absolutely nothing between." [4] The discontinuous, thus, is also at the same time continuous. The continuity is not that which is merely thought, or deduced, or symbolised, it is the continuity discovered and perceived. Here, again, the principle of *compounding* forced on James by experience in the face of ratiocination, is rigorously applied. His empiricism shows itself once more to be radical.

[1] The italics are mine. [2] *A Pluralistic Universe*, p. 231.
[3] *Some Problems in Philosophy*, p. 172. [4] *Ibid.*, p. 187.

V.

Such, then, is the structure of reality considered in its nearness and intimacy. Is it characterised by a prepotent order or a duality of orders? Does it, as a whole, contain a dominant stuff, or substance? Again, to say so would be to commit the fallacy of composition. With respect to order, experience as a whole presents itself as a chaos or quasi-chaos,—*i.e.* as a much-at-once. Its constitution appears to be, at least, non-rational, and there is to be found "no good warrant for ever suspecting the existence of any reality of a higher denomination than that distributed and strung along and flowing sort of reality we finite beings swim in.[1] . . . No more of reality collected together at once is extant anywhere perhaps, than in my experience of reading this page, or in yours of listening. . . . Sensational experiences *are* their 'own others'. . . . both internally and externally. Inwardly they are one with their parts, and outwardly they pass continuously into their next neighbours, so that events separated by years of time in a man's life hang together unbrokenly by intermediary events."[2] We are, it would seem, only warranted in concluding that "experience as a whole is a process of time, whereby innumerable particular terms lapse and are superseded by others that follow upon them by transitions which, whether disjunctive or conjunctive in content, are themselves experiences, and must in general be accounted at least as real as the terms which they relate. . . . The whole system . . . as immediately given presents itself as a quasi-chaos through which one can pass out of an initial term in many directions and yet end in the same terminus, moving from next to next by a great many possible parts."[3] "There is vastly more discontinuity in the sum total of experience than we commonly suppose. The objective nucleus of every man's experience, his own body, is, it is true, a continuous percept; and equally continuous as a percept (though we may be inattentive to it) is the material environment of that body, changing by gradual transition when the body moves. But the distant parts of the physical world are at all times absent from us, and form conceptual objects merely, into the perceptual reality of which our life inserts itself at points discrete and relatively rare. Round their several objective nuclei, partly shared and common and partly discrete, of the real physical world, innumerable thinkers, pursuing their several lines of physically true

[1] *A Pluralistic Universe*, p. 213. [2] *Ibid.*, p. 285.
[3] *Essays in Radical Empiricism*, p. 134.

cognition, trace paths that intersect one another only at discontinuous perceptual points, and the rest of the time are quite incongruent; and around all the nuclei of shared 'reality' . . . floats the vast cloud of experiences that are wholly subjective, that are non-substitutional, that find not even an eventual ending for themselves in the perceptual world—the mere day-dreams and joys and sufferings and wishes of the individual minds. They exist *with* one another, indeed, and with the objective nuclei, but out of them, it is probable that to all eternity no interrelated system of any kind will ever be made." [1] The world, in a word, is radically a pluralism, existence is piecemeal, and "piecemeal existence is independent of complete collectibility . . . some facts at any rate exist only distributively, or in form of a set of eaches, which (even if in infinite number) need not in any intelligible sense either experience themselves or get experienced by anything else, as members of an All."

Metaphysical and experiential being are, we may conclude, coincident with respect to order. There is neither monism nor dualism nor alternation of two orders. There are just terms and relations, conjunctive and disjunctive. The multiverse is discrete and radically plural. Reality is externally related. "Everything you can think of, however vast or inclusive, has . . . a genuinely 'external' environment of some sort or amount. Things are 'with' one another in many ways, but nothing includes everything, or dominates over everything. The word 'and' trails along after every sentence. Something always escapes. 'Ever not quite' has to be said of the best attempts made anywhere in the universe at attaining all-inclusiveness. The pluralistic world is thus more like a federal republic than like an empire or a kingdom. However much may be collected, however much may report itself as present at any effective centre of consciousness or action, something is self-governed and absent and unreduced to unity." [2]

Moreover, metaphysical is coincident with experiential being not alone in its discreteness, but in its continuity. The latter is constituted by "positively conjunctive transition". This involves neither chasm nor leap. "Being the very original of what we mean by continuity, it makes a continuum wherever it appears. Our fields of experience have no more definite boundaries than have our fields of view. Both are fringed for ever by a *more* that continuously develops,

[1] *Essays in Radical Empiricism*, pp. 65, 66.
[2] *A Pluralistic Universe*, pp. 321, 322.

and that continuously supersedes them as life proceeds."[1] "Life is in the transitions as much as in the terms connected; often, indeed, it seems to be there more emphatically, as if our spurts and sallies forward were the real firing-line of the battle, were like the thin line of flame advancing across the dry autumnal field which the farmer proceeds to burn. In this line we live prospectively as well as retrospectively. It is 'of' the past, inasmuch as it comes expressly by the past's continuation; it is 'of' the future in so far as the future, when it comes, will have continued it."[2]

Reality is a mosaic in which the pieces cling together by their edges, the transitions between them forming their cement. From this mosaic no experiential entity is excluded. Particularly, time is harmoniously co-present with space, and conversely. There is no ontological alternation or substitution of one for the other as in the Bergsonian account, no difference by the presence or absence of extension.[3] "Far back as we go, the flux, both as a whole and in its parts, is that of things conjunct and separated. The great continua of time, space, and the self envelop everything between them, and flow *together without interfering.*[4] The things that they envelop come as separate in some ways and as continuous in others. Some sensations coalesce with some ideas, and others are irreconcilable. Qualities compenetrate one space or exclude each other from it. . . . In all this the *continuities and the discontinuities are absolutely co-ordinate matters* of immediate feeling. . . . And the feeling of continuance in no wise jars upon the simultaneous feeling of novelty."[5] In all this the unity or continuity is that of "concatenation," not of "consolidation". "The world hangs together from next to next in a variety of ways, so that when you are off one thing you can always be on to something else without ever dropping out of your world."[6]

As there is no dominant and prevailing order in reality, but a compenetration and a conflict of all orders, so also there is no dominant and prevailing substance. The stuff of reality is whatever it appears to be—"*that*, just what appears, space, intensity, flatness, heaviness, brownness, what not". "There is no general stuff of which experience at large is made. There are as many stuffs as there are 'natures' in the things experienced."[7] Particularly is it to

[1] *Essays in Radical Empiricism*, pp. 70, 71.
[2] *Ibid.*, p. 87.
[3] *Ibid.*, p. 31.
[4] *Ibid.*, pp. 94-95. The italics are mine.
[5] *Some Problems in Philosophy*, p. 31.
[6] *Ibid.*, p. 131.
[7] *Essays in Radical Empiricism*, pp. 26, 27.

be denied that there exists any such special order of dominations as mind and matter, taken metaphysically, and Bergson so takes them. "There is . . . no aboriginal stuff or quality of being, contrasted with that of which material objects are made, out of which our thoughts of them are made."[1] There is no "impalpable inner flowing" given as an immediate consciousness of consciousness itself.[2] There is no inextension. 'Descartes for the first time defined thought as the absolutely unextended, and later philosophers have accepted the description as correct. But what possible meaning has it to say that, when we think of a foot-rule or a square yard, extension is not attributable to our thought? Of every extended object, the *adequate* mental picture must have all the extension of the object itself. The difference between objective and subjective extension is one of relation to a context solely. In the mind the various extents maintain no necessarily stubborn order relatively to each other, while in the physical world they bound each other stably, and added together, make the real enveloping Unit which we believe in and call real Space. As 'outer' they carry themselves adversely, so to speak, to one another, exclude one another, and maintain their distances; while as 'inner' their order is loose and they form a *durcheinander* in which the unity is lost. . . . The two worlds differ, not by the presence or absence of extension, but by the relations of the extensions which in both worlds exist."[3] Bergson, observing the same data, identifies by dialectic the relations with the substance, and rules extension out of the mental world altogether. James goes by experience. For him there is no intuition of thought "flowing as life within us, in absolute contrast with the objects which it so unremittingly escorts".[4] There is no mind-stuff, there is no matter. There are only thoughts in the concrete and there are things, and thoughts in the concrete are made of the same sort of stuff as things are. Even affectional facts, valuations, emotions, and so on indefinitely, do not belong to one realm exclusively, but are by usage determined now to this place, now to that. "If 'physical' and 'mental' meant two different kinds of intrinsic nature immediately, intuitively and infallibly discernible, and each fixed for ever in whatever bit of experience it qualified, one does not see how there could ever have arisen any room for doubt or ambiguity. But if, on the contrary, these words are words of sorting, ambiguity is natural. For then,

[1] *Essays in Radical Empiricism*, p. 3. [2] *Ibid.*, p. 6.
[3] *Ibid.*, pp. 30, 31. *Cf.* also *A Pluralistic Universe*, pp. 253, 254.
[4] *Ibid.*, p. 36.

as soon as the relations of a thing are sufficiently various, it can be sorted variously. Take a mass of carrion, for example, and the 'disgustingness' which for us is part of the experience. The sun caresses it, and the zephyrs woo it as if it were a bed of roses. So the disgustingness fails to *operate* within the realm of suns and breezes—it does not function as a physical quality. But the carrion 'turns our stomach' by what seems a direct operation—it *does* function physically, therefore, in that limited part of physics. We can take it as physical or as non-physical according as we take it in the narrower or wider context, and conversely, of course, we must treat it as non-mental or as mental.

"Our body itself is the palmary instance of the ambiguous. Sometimes I treat my body purely as a part of outer nature. Sometimes, again, I think of it as 'mine'; I sort it with the 'me,' and then certain local changes and determinations in it pass for spiritual happenings. Its breathing is my 'thinking,' its sensorial adjustments are my 'attention,' its kinæsthetic alterations are my 'efforts,' its visceral perturbations are my 'emotions'. The obstinate controversies that have arisen over such statements as these . . . prove how hard it is to decide by bare introspection what it is in experiences that shall make them either spiritual or material. It surely can be nothing intrinsic in the individual experience. It is their way of behaving toward each other, their system of relations, their function; and all these things vary with the context in which we find it opportune to consider them." Empirically and radically then, "there is no original spirituality or materiality of being intuitively discerned".[1]

Even concepts, secondary formations though they are, in substance less than, and in their functions additive to, the experiential flux, are not of another and different metaphysical status. Their stuff is like that of the residual reality. They are the "Natures" in the things experienced, and their *being* is an act that is part of the flux of feeling, while their *meanings* are part of the concrete disjunctions and discretenesses which diversify that same flux.[2] They too have the many-and-oneness which comes in every instance of experience, and are as real as percepts. Percepts and they "interpenetrate and melt together, impregnate and fertilise each other. Neither, taken alone, knows reality in its completeness. We need them both, as we need both of our legs to walk with."[3] Percepts and concepts are consubstantial.

[1] *Essays in Radical Empiricism*, pp. 148, 152-154.
[2] *Cf. Some Problems of Philosophy*, p. 48.
[3] *Some Problems of Philosophy*, pp. 52, 53.

"They are made of the same kind of stuff, and melt into each other when we handle them together. How could it be otherwise when the concepts are like evaporations out of the bosom of perception, into which they condense again whenever practical service summons them? No one can tell, of the things he now holds in his hands and reads, how much comes in through his eyes and fingers, and how much, from his apperceiving intellect, unites with that and makes of it this particular 'book'. The universal and the particular parts of experience are literally immersed in each other, and both are indispensable. Conception is not like a painted hook, on which no real chain can be hung; for we hang concepts upon percepts, and percepts upon concepts, interchangeably and indefinitely. . . . The world we practically live in is one in which it is impossible, except by theoretic retrospection, to disentangle the constitutions of intellect from those of sense. . . . Intellectual reverberations enlarge and prolong the perceptual experience which they envelop, associating it with the remoter parts of existence. And the ideas of these in turn work like those resonators that pick out partial tones in complex sounds. They help us to decompose our percept into parts and to abstract and isolate its elements."[1]

In sum, for James, the fundamental fact is the immediate experience taken at its face value. As such it is a much-at-once, containing terms and relations, continuities and discretenesses, inextricably mingled. There exists a real compounding, so that the empirical individual data, both the substantive and the transitive data, maintain their identities and yet compose larger wholes, present at the same time and in the same way, wholes which are truly wholes and exhibit new characteristics neither implied by nor otherwise foreshadowed in the aboriginal elements of which these wholes are composed. And all of these, although they must be taken temporally, are absolutely co-ordinate matters of being, there existing no one dominant order, no one dominant substance, but a congeries and aggregate of 'natures' and orders, metaphysically the peers one of the other.

VI.

The divergence of this insight, which is the insight of radical empiricism (an insight which does take reality at its face value, absolutely without reservations) from the meta-

[1] *Some Problems of Philosophy*, pp. 107, 108.

physic of tradition, both the 'empirical' and 'rationalist' is patent. Patent also must be its contrast with the Bergsonian philosophy. From that, indeed, its difference extends still more deeply. It reaches out to those perceptions which both great thinkers have so rigorously defended against the enemy, and concerning the reality of which they are unanimous. Those are the perceptions of *activity*, of *freedom*, of *novelty*, of *causation*. By Bergson, these terms are practically equated one with the other, and finally identified with *élan vital* and *durée réelle*. To his thinking, they are, in a word, simply different symbols designating his fundamental metaphysical intuition—real duration, spirit, life. To James they stand for distinct experiential data, co-implicative, perhaps, but not identical one with the other, and certainly not identical with a predominating metaphysical substance. "Taken in its broadest sense any apprehension of something doing, is an experience of activity. . . . Mere restless, zig-zag movement, or a wild *ideenflucht* or *rhapsodie der wahrnehmung*, as Kant would say, would constitute an active from an inactive world." "The word 'activity' has no imaginable content whatever save these experiences of process, obstruction, strivings, strain, or release, ultimate *qualia* as they are of the life given us to be known."[1] And that is all. James denies categorically that he maintains "a metaphysical principle of activity. There is no pragmatic need and scientific justification of one.[2] Now these, "*ultimate qualia*" as they are of life, are all experiences of activity: they are not all experiences of freedom and of novelty. And these words mean that what happens in the world is not pure repetition, which would still be activity, but that each fresh situation comes "with an original touch". Neither do these imply a 'principle of freewill,' for what could it do, "except rehearse the phenomenon beforehand?"[3] They imply simply that in some respects the future is not co-implicative with the past; that there are real and utterly unforeseeable *disjunctive* additions with nothing to link them "save what the words 'plus,' 'with,' or 'and' stand for;" that, to use James's familiar metaphor, reality grows in drops; that future and past are discrete; that activities are plural and not one.

So James is not involved in that Eleatic-Heracleitan ad-

[1] *A Pluralistic Universe*, p. 377; *Some Problems in Philosophy*, p. 212.
[2] *Ibid*, p. 391, note.
[3] *A Pluralistic Universe*, p. 392. That is really what Bergson's *durée réelle* does, since in it everything is somehow foreshadowed and prepared for, though not predetermined. Change is a sort of explication of the implicit or exteriorisation of the internal.

mixture, which is characteristic at once of neo-Platonism and Bergsonian temporalism. For the *poussée formidable* is given all at once and once for all, and it is an act continuous and indivisible and substantial, of which the discrete actions of experience, all the activities designated and enumerated by James, are but spatial corruptions and deteriorations. Creation is individuation of the unindividual, under the shock or opposition of matter. Duration is somewhat different from this creation for it requires that the past shall be both altered and unaltered in an internal and through-and-through addition, which is not altogether an addition, to the 'temporal extent' already given. Genuine *chance* is precluded from such a reality, although unforeseeability, and *freedom* in the Spinozistic sense of the word, alteration that springs out of the *total nature* of the *élan*, are not. Contingency does not reside in the *élan* itself, it resides in the *matter* on which it acts. The *élan* would still have diversified in the direction of intelligence and of instinct; even though the particular natural energy of which it made use were not carbonaceous, and hence no men and no bees and ants were formed. The capacity for them would, of course, still reside in it as a foreshadowing tension; it would simply not have been corrupted toward extension by means of carbon. Such considerations are, however, entirely foreign to James's views of chance or contingency. For him contingency is real here and now and *chance* is genuine immediately. In this, activity becomes co-ordinate and equivalent with causation, as freedom and chance do with novelty.

Now causation, concretely taken, involves for James, as for Bergson, something dramatic, a "sustaining of a felt purpose against felt obstacles, and overcoming or being overcome. The content of 'sustaining' is what it is 'known-as,' nothing more. It is *not* the rejection of either 'final' or 'efficient' causation for a *tertium quid*, but (at least in our personal activities which we most readily experience) the coalescence of both as activity. Such a coalescence is durational. Something persists. But also something is lost, and something is gained. "The activity sets up more effects than it proposes literally. The end is defined beforehand in most cases only as a general direction, along which all sorts of novelties and surprises lie in wait." [1] The novelties and surprises are utter and complete. "In every series of real terms, not only do the terms themselves and their environment change, but we change, and their *meaning* for us changes,

[1] *Some Problems of Philosophy*, p. 213.

so that new kinds of sameness and types of causation continually come into view and appeal to our interest. Our earlier lines, having grown irrelevant, are then dropped. The old terms can no longer be substituted nor the relations 'transferred,' because of so many new dimensions into which experience has opened. . . . Prof. Bergson, believing as he does in a Heracleitan '*devenir réel*,' ought, if I rightly understand him, positively to deny that in the actual world the logical axioms hold good without qualification. Not only, according to him, do terms change, so that after a certain time the very elements of things are no longer what they were, but relations also change, so as no longer to obtain in the same identical way between the new things that have succeeded upon the old ones. If this were really so, then however indefinitely sames might be substituted for sames in the logical world of nothing but pure sameness, in the world of real operations every line of sameness actually started and followed up would eventually give out, and cease to be traceable farther. Sames of the same in such a world will not always (or rather, in a strict sense will never) be the same as one another, for in such a world there *is* no literal or ideal sameness among numerical differents. Nor in such a world will it be true that the cause of the cause is unreservedly the cause of the effect, for if we follow the line of real causation, instead of contenting ourselves with Hume's and Kant's eviscerated schematism, we find that remoter effects are seldom aimed at by causal intentions, that no one kind of causal activity continues indefinitely." [1]

Prof. Bergson, of course, does not believe anything of the sort, since the Heracleitan *devenir réel* is not so real to him as the Plotinian duration which is also *eternity*,[2] and since the continuity, indivisibility, and substantiality of that transcendental and metaphysical change which is real duration, vital impulse, creative evolution, preclude utterly just these empirical descriptions of how change and activity do go on and novelties do arise. His critique of intellectualism, indeed, points to a recognition of the purely empirical character of change, but it is always incidental, and underneath it always stands the firm assumption of the unity of duration, of its diversification into the two inverse movements of spirit and matter and of the composition of the world of actual experience by the confrontation of these two forces.

The main outlines of Bergson's thought are the main out-

[1] *A Pluralistic Universe*, pp. 397, 398.
[2] *Cf. Introduction à la Métaphysique*, and *supra*.

lines of all transcendentalism. The main outlines of James's thought are not prefigured in the history of philosophy. Seeking to build no system, not even an eclectic one, he organises no material in any particular way. He speaks of pragmatism as a *mediator* between rationalism and empiricism, monism and pluralism. He accepts apriorities in thought when they confirm themselves empirically as such; and he rejects dogmas when they do not so confirm themselves.[1] His alliances with traditional empiricism are not stronger than his alliances with traditional idealism. His ultimate alignment must be, as he himself points out, with realism. "Radical empiricism . . . has more affinities with natural realism than with the views of Berkeley or of Mill."[2] Indeed it is naïve or *logical realism*,[3] freed from intellectualistic bias, and restored to that integrity and impartiality of insight which is the source of all that is systematic or dominative in philosophic perception.

[1] *Cf. Principles of Psychology*, II., ch. xxviii.

[2] *Radical Empiricism*, p. 76.

[3] *Cf. Some Problems in Philosophy*, p. 106: "What I am affirming here is the Platonic doctrine that concepts are singular, that concept-stuff is inalterable, and that physical realities are constituted by the various concept-stuffs of which they 'partake'. It is known as 'logical realism' in the history of philosophy."

V.—DISCUSSIONS.

THE CALCULUS OF STRICT IMPLICATION.

The postulates of a non-Euclidean geometry need differ from those of the Euclidean system at only one point—the different assumption about parallels. But this single difference changes the meaning of "straight," "triangle," etc. (in that it alters their properties), and is thus reflected throughout the whole system. When it becomes necessary to choose between a Euclidean and a non-Euclidean system for purposes of practical application, the following points are worthy of note: First, both are self-consistent systems and their theorems, as pure mathematics, equally true. But they are true of different kinds of space. Second, it may be maintained that our space is actually Euclidean and the non-Euclidean system, therefore, false as an applied geometry. Or one may assert that we can never demonstrate the Euclidean character of our space, because we are able to survey such comparatively small portions of it at one time. But, third, it is conceded on all sides that the Euclidean system is at least more convenient, because it accords with our practical and useful ways of dealing with space-filling objects, and is thus pragmatically the true one.

In a previous paper, I have tried to show that the present calculus of propositions, in the algebra of logic, is to ordinary inference what a non-Euclidean geometry is to our space.[1] In particular, it asserts the presence of implication relations whose existence in our world may be doubted.[2] It is the purpose of the present paper to outline a "Euclidean" calculus of propositions—that is, one which will be applicable throughout to our ordinary modes of inference and proof. For the sake of brevity, this proposed system will be referred to as "strict implication"; the calculus of propositions in its usual form, as "material implication".

The relation of these two sufficiently resembles that of a Euclidean and a non-Euclidean geometry to make the analogy

[1] This journal. N.S. No. 84.

[2] For example, in the two theorems, "A false proposition implies any proposition" and "A true proposition is implied by any proposition". These two theorems were discussed in the previous paper.

worth bearing in mind.[1] Like two geometries, material and strict implication are equally self-consistent mathematical systems; but they apply to different worlds. Material implication, it will appear, applies to any world in which the all-possible is the real, and cannot apply to a world in which there is a difference between real and possible, between false and absurd. Strict implication has a wider range of application. Most importantly; it admits of the distinction of true and necessary, of false and meaningless.

We can best approach the comparison of these two by considering their initial difference. In the system of material implication, there are three important relations of propositions,—implication, disjunction, and product.[2] Any one of these may be stated in terms of any other. Thus 'p implies q'—where p and q are propositions—is equivalent to the disjunction of not-p and q—to 'either p is false or q is true'. This disjunction in turn is equivalent to the negative of a product: 'either p is false or q is true' means 'it is false that "p is true and q is false"'. From these equivalences it is at once evident that p *always* (materially) implies q unless p is true and q false. If p is false, p implies q, whatever proposition q may be; a false proposition implies anything. If q is true, p implies q, whatever proposition p may be; a true proposition is implied by any proposition.

The difficulty lies in the ambiguity of 'either—or'. It seems fairly evident that 'p implies q' is equivalent to 'either p is false or q is true'—'To-day is Monday implies that to-morrow is Tuesday' is equivalent to 'Either to-day is not Monday or to-morrow is Tuesday'. It is also the fact that 'it is false that "p is true and q is false"' is equivalent to 'either p is false or q is true'—'It is false that "to-day *is* Monday and it *is not* raining"' is equivalent to 'either to-day *is not* Monday or it *is* raining'.[3] But, as was pointed out at length in the previous paper, these two disjunctions have, or ought to have, distinct meanings. It is just the defect of material implication that it does not distinguish them. The 'either—or' which is equlvalent to an implication and the 'either—or' which is equivalent to the negative of a product, are not themselves identical or even equivalent. 'Either to-day is not Monday or it is raining'—equivalent to the negative of a product—is *not* equivalent to 'to-day is Monday *implies* that it is raining'. The 'either—or' which is equivalent to an implication is intensional disjunction, the 'either—or' of the dilemma. The dis-

[1] One difference should be noted: a system of geometry gets its methods of proof from logic; a system of logic lays down its own. Hence, a "false" assumption in geometry gives rise to false consequences; a "false" postulate in logic will introduce not only "false" theorems but "false" proofs. This fact complicates the difference of two logical systems. Nevertheless a calculus in logic may be, as pure mathematics, true; as applied mathematics, either absolutely or pragmatically false.

[2] pq, the product of p and q, means 'p is true and q is true'.

[3] De Morgan's theorem.

junction which is equivalent to the negative of a product is extensional disjunction : its distinguishing characteristic is the fact that it is satisfied merely by the truth of one member. The extensional disjunction, 'either Cæsar died or the moon is made of green cheese,' is true because Cæsar died. If p is true, the extensional 'either p or q' is true, however irrelevant the content of p and q.

These two meanings of disjunction may be summarily contrasted. The intensional 'either p or q' means 'it is *impossible* that p and q should both be false; if either *were* false, the other would necessarily be true; the negation of either (strictly) *implies* the other'. The extensional 'either p or q' means 'it happens to be the fact that at least one of the propositions, p and q, is true; it is not true that p and q are both false; the product, not-p not-q, is false'. The initial difference of the proposed system of strict implication from that of material implication is, then, that the former distinguishes these two kinds of disjunction, while the latter does not. If we use $p \vee q$ to symbolize intensional disjunction, $p + q$ for extensional, we may state this fundamental difference as follows :—[1]

1. For material implication,
$$(p \supseteq q) = (-p \vee q) = (-p + q) = -(p - q)$$
2. For strict implication,
$$(p \supset q) = (-p \vee q) \doteq (-p + q) = -(p - q).$$
3. For material implication,
$$(p - q) = -(-p + q) = -(-p \vee q) = -(p \supset q).$$
4. For strict implication,
$$(p - q) = -(-p + q) \doteq -(-p \vee q) = -(p \supset q).$$

Obviously if 'either p or q' is a dilemma, then at least one of the propositions, p and q, will be, as a fact, true. Thus the intensional disjunction of p and q implies their extensional disjunction as well. For this reason, the sign of non-equivalence in 2 and 4 may be replaced by the implication sign. But that implication is *not* reversible.

This initial difference, as with two geometries, is reflected throughout the two systems. They have different meanings of 'implies,' and of equivalence, as well as theorems which are different. Even the theorems in common,—that is, those which read identically—have a different significance. This is because a logical calculus is a system not only *of* implications but *about* implications.

The assumptions of the two systems may similarly be exhibited

[1] The symbolism is that of the *Principia Mathematica* of Russell and Whitehead, with certain modifications. p, q, r symbolise propositions. $-$ is the sign of negation. $-p$ means not-p, p is false. $p \supset q$, p implies q. The development of the calculus which we follow throughout is, likewise, that of the *Principia Mathematica*.

together. Since material implication does not properly treat of intensional disjunction at all, its disjunctions will be symbolised as extensional.

Material Implication.[1]	Strict Implication.
M1. $(p \supset q) = (-p + q)$ Df.	S1. $(p \supset q) = (-p \vee q)$
M2. $(pq = -(-p + -q)$ Df.	S2. $pq = -(-p + -q)$
	S3. $(p \vee q) \supset (q \vee p)$
M3. $(p + q) \supset (q + p)$	S4. $(p + q) \supset (q + p)$
M4. $(p + p) \supset p$	S5. $(p + p) \supset p$
M5. $p \supset (p + q)$	S6. $p \supset (p + q)$
	S7. $(p \vee q) \supset (p + q)$
	S8. $p \vee (q \vee r)] \supset [q \vee (p \vee r)$
M6. $p + (q + r)] \supset [q + (p + r)$	S9. $p \vee (q + r)] \supset [q \vee (p + r)$
	S10. $(q \supset r) \supset [(p \vee q) \supset (p \vee r)$
M7. $(q \supset r) \supset [(p + q) \supset (p + r)$	S11. $(q \subset r) \supset [(p + q) \supset (p + r)$

It will be noted that M2-M5 are identical with those opposite them. M6, omitted from the list for strict implication, is entirely consistent with S1-S11 but has very little independent deductive force when S9 is assumed. The larger number of postulates for strict implication is necessary because of the distinction of kinds of disjunction. Also, strict implication seems to have one more indefinable, though this is not really the case.[2]

One main interest in comparison will be to consider the theorems of material implication which are omitted altogether from the proposed system. They throw light upon the meaning of material implication. The most important of them are the following:—

1. $p \supset (q \supset p)$ A true proposition is implied by any proposition. [3]
2. $-p \supset (p \supset q)$ A false proposition implies any proposition.[4]
3. $-(p \supset q) \supset (p \supset -q)$ If a given proposition does not imply any other, then it implies the negative of that other.[5]
4. $-(p \supset q) \supset (q \supset p)$ Of any two propositions, if one does not imply the other, then the other implies the one.[6]

[1] See *Principia Mathematica*, pp. 100, 101, and 116.

[2] Equal by definition is a primitive idea of material implication. For strict implication it is not but is merely the idea of equivalence in general. For material implication equivalence in general means only equivalence of truth value,—$p = q$ means 'p and q are either both true or both false'. Strange as it may seem, this defining relation, equivalence, may, in strict implication, be itself defined as follows,—$(p = q) \supset [(p \supset q)(q \supset p)]\} \{[(p \supset q)(q \supset p)] \supset (p = q)$. This is a very awkward expression but an entirely workable definition which involves only the ideas of 'implies' and of the 'product' of two expressions. In order to use this definition certain changes in the form of the other postulates would be necessary. For instance, S6 would need to be changed to $p\,q \supset p$.

[3] *Prin. Math.*, *2·02.

[4] *Ibid.*, *2·21.

[5] *Ibid.*, *2·52. See also *2·5 and *2·51.

[6] *Ibid.*, *2·521.

5. $pq \supset (p \supset q)$ Of any two true propositions, each implies the other.[1]

6. $-p -q \supset (p \supset q)$ Of any two false propositions, each implies the other.

7. $-pq \supset (p \supset q)$ Of any two propositions, one of which is false and the other true, the false one implies the true one.

8. $(p \supset r) \supset [p \supset (q \supset r)$ If a given proposition, p, implies another, r, then p implies that r is implied by any proposition. One and all these theorems result from converting an extensional disjunction into an implication. They are the consequences of using M6—the "principle of addition" which is true only of extensional disjunctions—and M1 in the same proof.

These are by no means the only theorems of material implication which are likely to seem useless. Others, which are more positively absurd, are usually omitted. For example, $p\,q \supset (-p \vee q)$ and $-(p \supset q) \supset -q$. The first of these may be read, "If p and q are both true, then either p is false or q is true"; the second, "If any proposition, p, does not imply q, then q is false. It is easy to demonstrate that an infinity of such absurd propositions follow from the assumptions of material implication. The significant and useful theorems of that calculus thus appear to be, like Gratiano's reasons, two grains of wheat. That they are not hid in two bushels of chaff is due to the restraining intelligence which manipulates the system.

These theorems are absurd only in the sense that they are utterly inapplicable to our modes of inference and proof. Properly, they are not rules for drawing inferences at all, but only propositions about the nature of any world to which this system of material implication would apply. *In such a world, the all-possible must be the real, the true must be necessary, the contingent cannot exist, the false must be absurd and impossible, and the contrary to fact supposition must be quite meaningless.*

First, the all-possible must be real, because, in material implication, the intensional and extensional 'either—or' will be of identical significance. The disjunction of any two propositions, one of which happens to be true,—'either Cæsar died or the moon is made of green cheese,'—must have the force of a dilemma whose alternatives *exhaust the possibilities.*

Second, the true must be necessarily true, true *a priori*, if "a true proposition is implied by any proposition". A proposition which is implied by any assertion,—*e.g.* the Cartesian "I am,"—is necessarily true. In particular, any proposition that is implied by its very denial is necessarily true, and every true proposition is (materially) so implied. $p \supset (-p \supset p)$ is a special case of $p \supset (q \supset p)$.

Third, the contingent cannot exist, since all facts will be *necessarily* as they are, and the truth about them *a priori*.

[1] *Prin. Math.*, *3·4.

Fourth, the false will be impossible and absurd when "a false proposition implies anything," even its own denial. $-p \supset (p \supset -p)$ is a special case of $-p \supset (p \supset q)$. Every false proposition (materially) implies its own contradiction and is thus proved absurd.

Fifth, the contrary to fact supposition will be meaningless, because, being false, it will be absurd and its contradiction a necessary truth.

Finally, this world will be marked by that ubiquity of the implication relation which is maintained by the "coherence theory of truth". The truth about anything (materially) implies the truth about anything. Is q true or is its negative, not-q, true? Let us take any (irrelevant) fact, p, and note its implications. "If p does not imply q, it implies the negative of q." The fact, p, implies the truth about the matter in question, whatever it may be: "of two true propositions, each implies the other".[1]

The system of strict implication distinguishes the false from the absurd, the merely contrary to fact from the impossible, and the merely true—the contingent—from the necessarily true whose very denial implies it. In strict implication the theorem, "Any true proposition is implied by its own denial," does not appear. But its converse, "Any proposition which is implied by its own denial is true," still holds. $(p \vee p) \supset (p + p)$ is a special case of postulate S7, $(p \vee q) \supset (p + q)$. $(p \vee p) \supset (p + p)$ together with S5, $(p + p) \supset p$, gives us $(p \vee p) \supset p$. Replacing the intensional disjunction, $(p \vee p)$, by its equivalent implication, $(-p \supset p)$, we have $(-p \supset p) \supset p$,—if p is implied by its own denial, then p is true. This theorem might be called the principle of necessary truth.

Similarly the principle of absurdity still holds for strict implication, but does not apply to every false proposition. If we substitute p for not-p and not-p for p in the last theorem, we shall have at once $(p \supset -p) \supset -p$,—if any proposition, p, implies its own denial, then p is false. But the converse, $-p \supset (p \supset -p)$,—if any proposition, p, is false, then it implies its own denial, cannot be proved from our postulates. Hence the contrary to fact supposition need not be meaningless. It does not inevitably imply its own contradiction and thus reduce itself to the absurd.

In this connexion postulate S9, $p \vee (q + r)] \supset [q \vee (p + r)$, is of particular interest. That the merely contrary to fact implies anything is repugnant to common sense. But does the impossible—the absurd supposition—imply anything and everything? And is the necessarily true, whose denial is absurd, implied by any proposition whatever? When we include S9 in our list of postulates, we assume that this is the case, as will appear from the following consequences of that postulate. First, $(p \supset q) \supset (p - q \supset r)$,—if p implies q, then 'p is true and q is false' implies any proposition, r. When p implies q, it is, of course, impossible that p should be true

[1] Two false propositions likewise imply each other because a false proposition is absurd and implies anything.

but q false. The theorem states that this impossibility implies anything. Second, $p \supset -(q - q)$,—that it is false that q and its denial are both true is implied by any proposition, p. That q and not-q should both be true is impossible, and the denial of this, consequently, a necessary truth. The theorem states that this necessary truth is implied by any proposition.

If one object to the notion that absurdities imply anything, and that the necessarily true is implied by anything, then it is only necessary to substitute M6, $p + (q + r)] \supset [q + (p + r)$, for S9, $p \vee (q + r)] \supset [q \vee (p + r)$. This change will eliminate the above theorems and others which have a like significance. Some of these, at least, are exemplified in our everyday reasoning.[1]

If we ask, now, whether the actual world is such a one as material implication may apply to, the answer is not self-evident. Here, again, we are reminded of rival geometries. We do not *discover* the necessity of all facts, nor the absurdity of every contrary to fact hypothesis. Nor are we able to verify that ubiquity of the implication relation demanded by material implication. One may thus maintain that the real is not the all-possible, that reality is, in some part, contingent and not necessary, that the multiverse of things "hang together by their edges," and, consequently, that the system of material implication is false as an applied logic. But an obvious reply has it that this is a generalisation from our ignorance,—that our belief in the contingent and the false but not absurd, is due to the smallness of our ken. A decision on metaphysical grounds would thus be doubtful.

Pragmatically, however, material implication is an obviously false logic. If 'p implies q' means *only* 'it is false that p is true and q false,' then the implication relation is far too ubiquitous to be of any use. If we ask for the consequences of any proposition, we are immediately confronted with all the truths we can think of. If we are so foolish as to make a condition contrary to fact, we must at once accept its own contradictory as the logical result. Not only is such reasoning applicable only to a monistic universe, but it is suited only to infinite wisdom. Indeed, one may suspect that we should feel alienated from even an absolute mind which "reasoned" after this fashion. As has already been said, the few theorems in which the present calculus of propositions clearly reveals its meaning of 'implies'—and the infinity like them which are omitted—are not capable of *any* proper use as rules for reasoning. In order so to use them one would need to know the truth or falsity which the reasoning is supposed to discover. Does p (materially) imply q? Tell us first whether p is false or q true, and we can answer.

[1] For instance, $(p\,q \supset r) \supset (p - r \supset -q)$. Suppose $p \supset r$ and q is irrelevant. Then $p\,q \supset r$, $p - r$ is impossible, and $-q$ might be any irrelevant proposition. This theorem is incidental to Mrs. Ladd-Franklin's "inconsistent triad," and is as old as Aristotle.

Even if we take it to be the case that every truth implies every other, the process of *reasoning* about their relations must follow entirely different paths. It must proceed to ask *how* the one fact implies the other, and this inquiry always turns upon possibilities, which will seem to be wider than the mere facts. Would it be a successful piece of deduction if the instructor enlightened the student in accordance with such rules as the system of material implication affords: "The theorem is true; I've proved it. A true proposition is implied by anything. Therefore your postulates imply your theorem. *Q.E.D.*" And if a calculus of propositions is not good for reasoning — ?

It might be objected that the system of material implication at least contains a multitude of theorems which are practical and useful as modes of reasoning. But alas, it contains so much else! The theorems in question belong also to the system of strict implication. Pragmatically, the advantages are all with this system, because it is fundamentally a calculus of possibilities, impossibilities, and necessities, not simply of facts. Whether or not the universe is such as to satisfy our most rationalistic longings and validate the doubtful theorems of material implication, it is still the case that our logical gropings beyond the present fact must always proceed by way of possibilities and impossibilities. But even if, in the end, one prefer the false simplicity of material implication, this much, at least, remains clear; the present calculus of propositions is only one among a number of such systems, each of which may be self-consistent and a possible choice as an applied logic.

C. I. Lewis.

IS INVERSION A VALID INFERENCE?

To one who has long ago climbed out of the dark and narrow pit of Traditional Logic, it is very pitiful to see others still groping about in its depths. A number of ingenious logicians have been gravely discussing in the pages of MIND whether inversion is or is not a valid inference, and have sought the aid of Euler's circles in order to solve the knotty problem. I have watched them with the same feelings as I should watch a party of astrologers discussing whether the prevailing epidemic of influenza is or is not due to the conjunction of Mars and Saturn in Taurus, and determining the matter by the aid of the triplicities. How long, I wonder, will it take logicians to wake up and realise that the world has gone on and left them behind, and that the contrivances of Traditional Logic, its inverses and obverses, its syllogisms and enthymemes, are as utterly obsolete as the crystal spheres of Ptolemy and the four humours of Hippocrates? A reasoner who should attempt to conduct an argument by any mode of inference taught in Traditional Logic would excite as much wonder and derision as an astronomer who should try to compile the nautical almanack by the crystal spheres of Ptolemy, or a physician who should treat a disease by evacuating the peccant humour. Throughout this very discussion on Inversion, not one of the disputants ever uses any one of the contrivances of Traditional Logic. I look in vain in their arguments for an instance of conversion, obversion, contraposition or syllogising; and the extraordinary thing is that while every logician teaches that these modes of inference ought to be used and must be used in argument, for there are, according to him, no others, yet not only does no logician ever use one of them in his arguments, but also not one logician ever seems conscious of the omission. It is as though every gardener should teach that the proper implement to dig a garden with is a pair of tongs, and yet every gardener should use a spade for the purpose, and never discover that his teaching was at variance with his practice. For practical purposes the syllogism is about as useful as an unreliable apparatus for converting new-laid eggs into stale ones. It cannot be relied upon to do its work, and its work, when done, is useless. If these ingenious gentlemen really want, which I can scarcely believe, to know whether inversion is or is not a valid inference, I commend to them the following passage from my *New Logic*, in which they will find also the converse, the obverse, the contrapositive, and the syllogism discussed with similar results:

'The inverse is arrived at by a method so complicated that I will not trust myself to attempt it, but will take, from a standard text-book, the following example: "Every truthful man is trusted"—Inverse "Some untruthful men are not trusted". Some logicians doubt the legitimacy of this form of Inference [it seems that some of them doubt it still]; and I must confess to misgivings about it, for, if it is valid, I see no reason why it is not equally valid to infer from "Every truthful man is mortal" to "Some untruthful men are not mortal". This puts on inveracity a premium which is scarcely to be expected from the justice of Providence, and what is more to the purpose, does not seem to me to be implied in the postulate.'

Of course I know quite well the scorn with which the professional logician will look upon this exposure of inversion. 'Here,' he will say, 'we have been trying for eighteen months to make a needle stand upright, and we had nearly got it to balance on its point, when in comes a practical ruffian and sticks the point into the table. It is true that the needle does now stand upright, and the aim is in some sort attained, but what a gross violation of the rules of the game! Compare the exquisite deftness and dexterity that would have been needed to balance it on its point with this coarse rough-and-ready proceeding!' To this I answer that if logic is to be looked upon as an elaborate game, to exercise the wits of idle men, and to lead to nothing beyond the barren triumph of solving problems that are useless when solved, well and good: let it be so used. It is then a better game than draughts, and but little inferior to backgammon. But though logicians do not recognise the difference, a game is one thing, and a science is another. There are two ways of doing everything, ways which differ according as we want to get the thing done, or want to find amusement in doing it. If you want the glory and exhilaration and exercise of the chase, why by all means keep your pack of hounds and your stable of hunters, and kill, or fail to kill, your fox in the most tedious, expensive, and uncertain manner you can devise; but if you want to get rid of the marauder who steals your poultry night after night, you will find it more effectual to sit up for him with a gun, or to set a trap, or perchance to lay poison for him. Unsportsmanlike, no doubt, but the practical poultry farmer is not concerned with sport. He cannot afford it. He has his poultry and his living to think of. And the practical reasoner who has to work out the problems of life cannot afford either the time or the brains for the sport of hunting the obverse and the contrapositive and the inverse, and the rest of the logical vermin. His living, and often his life, depend upon his arriving rapidly at correct results in his reasoning, and if he has ever been so unfortunate and misguided as to study Traditional Logic, he knows very well that it will consume an enormous amount of time; that its reasonings, such as they are, can be applied only in a very narrow field, which he is never likely to enter; and that

it is so full of traps and pitfalls that no one who has not spent years in mastering its perplexities can follow its processes with any assurance of using them correctly.

I have nothing to say against the cultivation of Traditional Logic as a game. For my own part, I find it rather dreary, and much prefer chess, which I find more interesting and not more useless; but

> *Chacun à son gout*, no use talking at random;
> We all know *de gustibus non disputandum*.

Traditional Logic has not a shadow of pretence to pose as the science or art of reasoning, and never will have until one of its votaries uses its processes, and conducts his own arguments in accordance with its rules. In the current number of MIND, Mr. Hicks examines the arguments of Dr. Ross and Dr. Rieber, Dr. Bosanquet examines the arguments of Miss Jones, Mr. Latta examines the arguments of Dr. Bosanquet, and not one of the six uses the converse, or the obverse, or the contrapositive, or the inverse, or the syllogism, in argument. Not one! There is no trace throughout the whole of their argumentative articles of any of these logical processes; and in the whole two thousand years of the life of Logic, such a portent as a logician, or any one else, arguing according to the rules of Logic has never yet appeared, except in the formal disputations of the Schoolmen, and even one of these was so impressed with the absurdity of the whole scheme that he proposed as his graduation thesis, *Quæcunque ab Aristotele dicta esse, commentitia esse.* To say that everything that Aristotle wrote is bosh is perhaps an exaggeration, but to apply the same term to the monstrous edifice that has been built upon his *Organon* is not without justification. It is not a term that I should myself use, but I could readily understand and pardon its use by a practical reasoner who should have gone to Traditional Logic for guidance, and should have been presented with inversion as a possibly valid inference.

The game that Dr. Bosanquet and his critics play is a different game. Dr. Ross and Dr. Rieber and Mr. Hicks play with counters which have a certain small value, say a hundred to the penny, and the game has certain rules that they observe; but Dr. Bosanquet and his critics play a game of spoof, the basis of which is that they pretend to understand each other, and so impress the outsider with their profundity. They engage in transactions of enormous magnitude. They deal in huge sums, and pose as mental millionaires; but when their transactions are examined, they are found to be of the nature of cashing cheques on the Bank of Engraving with notes on the Bank of Elegance. They play their game fairly enough among themselves, and neither of them wins or loses, and if they did it would not matter, either to themselves or to any one else. The fun of the game lies in spoofing the outsider.

CHARLES MERCIER.

MR. RUSSELL ON SENSE-DATA AND KNOWLEDGE.

PERHAPS the most important feature in Mr. Russell's theory of sense-data is his belief that "it is not certain that the quality which is the sense-datum ever exists at times when it is not a sense-datum" (MIND, 78).

It is however difficult to see that he has adduced any sufficient reasons to support this belief. Indeed, if we adhere to his analogy in MIND (77), we seem driven to a contrary conclusion. "A quality," he says there, "*becomes* a sense-datum by being given in sense, just as a woman becomes a wife by being given in marriage". But how can a quality *become* a sense-datum unless it already exist prior to its being a sense-datum—*i.e.*, in some sense, when it is not a sense-datum? not to press the analogy further, and to point out that a woman exists before she becomes a wife.

Nor do the arguments employed by Mr. Russell in his *Problems* appear to justify the belief that "there is no good reason to suppose that sense-data exist when they are not sensated" (MIND, 79). "Colour," he asserts (*Problems*, 42), "ceases to exist if I shut my eyes." But we cannot assert this directly and dogmatically on the ground of experience alone. All that experience enables us to assert is, that when I shut my eyes my *sensation* —my awareness—of the sense-datum ceases; and that, as Mr. Russell himself insists, is quite a different matter. To be certain that the sense-datum ceases when my eyes are shut, I should have to devise some means of observing its existence or non-existence while my eyes remained closed.

Curiously enough, in the same passage, Mr. Russell recognises this so far as hardness is concerned (*Problems*, 42). "*Colour* ceases to exist if I shut my eyes;" but, if I remove my arm from contact with the table "the *sensation of hardness* ceases to exist" —not hardness, but the sensation of hardness; whereas, in the other instance, it was colour, not the sensation of colour; *i.e.*, in the one case, the *sense-datum*, in the other the *sensation*, ceases to exist, under similar conditions; and this contradiction must be removed before it can be admitted that Mr. Russell has established his point beyond dispute. This vitiates further Mr. Russell's contention on page 65 of *Problems*. Previous arguments, he says, "proved that a certain *colour* will exist" under certain conditions; but what the previous arguments have proved seems to be that a

certain *sensation* of colour will exist under these conditions; which again, on Mr. Russell's own principles (*Problems*, p. 17) is quite a different thing. His arguments leave the question of the existence of sense-data when not sensated still open.

In consonance with Mr. Russell's view of the existence of sense-data as thus conditioned, is his belief that "sense-data are private to each separate person" (*Problems*, 32). It is however difficult to reconcile with this, his views on knowledge of universals.

Merely, apparently, "by seeing many white patches" (*Problems*, 158) (each private to my own experience) "we learn to abstract the whiteness which they all have in common," and thus become acquainted with whiteness and other universals of the same sort. Even if we accept this theory of knowledge of universals, it seems obvious that it contains nothing which can account for any knowledge of universals outside my own private experience. If the existence of the white patch as a sense-datum is determined to be within my private experience because it is conditional on the activity of sense organs, the only difference between the white patch as a sense-datum, and the whiteness as a universal, is that the latter is conditioned, in addition to the action of sense-organs, by the activity of higher cerebral centres, on which the process of abstraction depends. There is no reason, then, in the process itself, to regard universals as known outside my private experience. But Mr. Russell's conclusion (how reached is not at all clear) is different; for we have (*Problems*, 213) "facts about universals do not have this privacy; many minds may be *acquainted with the same universals*".

It would, of course, be a curious kind of universal about which this could not be said; the point is, that Mr. Russell's insistence on the restriction of sense-data to private experience will not harmonise with his belief in the common knowledge of universals, which somehow arises from that private experience.

Similarly contradictory are Mr. Russell's assertions about our possible knowledge of physical space, and of the relations between physical spaces (*Problems*, 50). As might be anticipated, "we cannot have immediate acquaintance with physical distances"; none the less "we can know the relations required to preserve the correspondence with sense-data" (*i.e.*, of these physical distances). But, as James pointed out long ago, the relations between spaces are themselves spaces; and hence the position becomes, that while we cannot know physical spaces if these be themselves terms, we can know them if they be (as they must be) relations, between physical spaces as their terms.

The same argument will of course dispose of Mr. Russell's distinction between private time as directly known, and public (?) time as not directly known.

The other point on which Mr. Russell insists is the distinction between knowledge by acquaintance, and knowledge by description; and here also it is difficult to see that all his assertions form themselves into a coherent system.

First as to a minor point which may be remedied by altering one or two modes of expression. Mr. Russell insists (and rightly) on the distinction between sense-data and sensations; and states (*Problems*, 52), "sense-data constitute the perceptions of those objects". Then (MIND, 80), he uses perception "as synonymous with sensation"; and the statement in *Problems* becomes synonymous with "sense-data constitute the sensations of objects," which obviously abrogates the essential difference between sense-data and sensations themselves.

Then as regards the precise definition of knowledge by description given in MIND (77). This definition appears fallacious, as including within itself the term to be defined. For if we ask "How is it known that the entity has the property ϕ?" we can only reply, "This is knowledge by description, since knowledge of the entity by acquaintance—the only possible alternative—is *ex hypothesi* impossible". Whence the definition really becomes—"Knowledge by description of the entity x . . . where the entity which has the property ϕ *is already known by description*,"—knowledge whose nature it is the intention of the definition to express.

But, even granting the correctness of the definition, there appear to be contradictions in Mr. Russell's application of it.

"My knowledge of the (physical) table," he says (*Problems*, 74), "is knowledge by description . . . all our knowledge of the (physical) table is really knowledge of truths"; whence it would follow that all propositions concerning the physical table contain descriptions.

Turning to page 91 (*Problems*) we find: "The fundamental principle in the analysis of propositions containing descriptions is this: Every proposition which we can understand must be composed wholly of constituents with which we are acquainted".

Let us test this principle by some of Mr. Russell's own propositions.

Problems, 46:—

"A circular coin has a real shape which is not its apparent shape". *A*.

Ib., 47:—

"Physical objects are in the space of science . . . physical space . . . not identical with the spaces we see and feel". *B*.

Both these propositions refer to objects which are in the same category with the physical table of page 74; therefore propositions

concerning these objects (like those concerning the table) "contain descriptions"; and therefore the "fundamental principle" of page 91 is applicable to them; *i.e.*, they must be composed of constituents with which we are acquainted.

Referring, then, to propositions *A* and *B*, with what constituents of these can we possibly be acquainted? On Mr. Russell's own principles, certainly with none of them;—neither the circular coin —nor its real shape, nor the physical objects, nor the space of science. The alternatives are then,—that we cannot understand these propositions of Mr. Russell's; or,—we are acquainted with their constituents,—which of course he repeatedly denies. That is, in order to understand his own propositions he must sacrifice his own basal principles.

Mr. Russell fully recognises the distinction between what are usually called necessary or *a priori* truths, and contingent truths (*Problems*, 131); but it cannot be said that his explanation of the essential difference between them, and of our knowledge of them, is quite satisfactory.

There is in this connexion a contradiction, perhaps merely apparent, between two assertions on page 139 of *Problems*:—

(*a*) "Our *a priori* knowledge . . . is applicable to whatever the world may contain, both what is mental and what is non-mental".

(*b*) "*A priori* knowledge is concerned with entities, which do not, properly speaking, exist"—

(*b*) here seems to place a curious limitation on "whatever the world may contain"—we must read it apparently as "whatever the world may contain, provided it do not exist".

Mr. Russell's general treatment of *a priori* knowledge (*Problems*, 164) would seem to imply that we can perceive the truth of an assertion dealing with universals, before we know the same assertion to be true of individuals, and even almost before we know that such individuals exist at all.

In his example (163-164) "The statement made is about couple, the universal . . . and *implies* statements about particular couples, *as soon as we know that there are such particular couples*,"—as though, that is, it were possible for us to know the universals and their relations, and then subsequently discover that there are individual couples in existence to which the *a priori* proposition applies.

Against such an implication, however, must be placed Mr. Russell's own theory of the acquirement of our knowledge of universals themselves from that of particulars (158 . . .); and the definite admission (120) that "a certain number of instances are needed to make us think of two abstractly".

In fact, it turns out that *a priori* knowledge is only valid (*as a priori*) in cases where we can experience the terms involved. From analogy with the Brown-Smith instance on page 165 of *Prob-*

lems, it would follow that we cannot know *a priori* that two atoms of H and two atoms of O make four atoms, since we cannot know by experience that there are such atoms. In that case, what is the value of *a priori* knowledge at all?

"It must be taken as a fact," says Mr. Russell (*Problems*, 164-165), "that we have the power of sometimes perceiving such relations between universals"; "as soon as we are able to divest our thoughts of irrelevant particularity" (120) "we become able to *see* the general principle".

But what a complete theory of knowledge and truth should attempt (even if it do not succeed) is surely some explanation of these facts; *why* do we become able to see the general principle? It is very curious how the real simple explanation of the whole "mystery" (given, so far as I know, first by T. H. Green) seems to be either unknown or overlooked. I think I am right in saying that neither in Mr. Joachim's *Nature of Truth* nor in Mr. Wildon Carr's *Problem of Truth* is the solution given; and yet it would almost seem to serve as a touchstone to the conflicting theories of the nature of truth; and its presentation in text-books, and popular books such as Mr. Carr's and Mr. Russell's, would remove a bugbear from the minds of the rising generation of students.

J. E. Turner.

VI.—CRITICAL NOTICES.

A New Logic. By CHARLES MERCIER, M.D., F.R.C.P., F.R.C.S., etc. London: William Heinemann, 1912. Pp. xxvii, 422.

> We speak of the errors of the past. We, with this glorious present which is opening on us, we shall never enter on it, we shall never understand it, till we have learnt to see in that past, not error, but instalment of truth, hard-fought-for truth, wrung out with painful and heroic effort.
> —J. A. FROUDE.

"LIGHT, from whatever quarter," is the watchword of logical science. From this point of view we may welcome the book now to be discussed, *A New Logic*, by Dr. Mercier, sweeping though his criticisms are of the 'traditional' Logic from which he differs. "From traditional Logic," he says, "I differ in every principle and in every detail . . . its whole system is insufficient, defective, and erroneous from beginning to end. . . . From the Inductive School . . . I differ no less profoundly . . . Modern Logic I confess I do not understand . . . Symbolic Logic . . . is Mathematics gone mad." This perhaps does not sound very promising. Still Dr. Mercier's book is both striking and suggestive. It is the work, not of a professed logician, but of a physician of eminence who has written on psychological, alienist, and legal topics. He desires to set forth the methods by which, as he believes, he reaches conclusions in the practice of his profession, and these appear to him to differ fundamentally from the methods of Traditional Logic.

He reproaches received Logic with being confused, inconsistent, and absurdly limited, and finds fault with its teachings on all the chief topics of the Science, including the doctrines of Propositions and of Reasoning, and he offers us a "New" Logic which is to supply the defects, and correct the errors of the old. All that can be attempted here is a brief examination of some of the new doctrines which he regards as specially important. The book is never dull—the style is vigorous, the illustrations are excellent, at every step we seem to be brought into touch with every-day life and thought.

Let us consider first Dr. Mercier's analysis of the Categorical Proposition, as contrasted with the 'Aristotelian' and 'Scholastic' analyses, the latter being, we are told, "a mode that has endured to the present day and is taught in every text-book of Logic although it is manifestly radically and incurably vicious".

The three analyses are as follows:—

(1) The Aristotelian, which analyses the Proposition into Subject and Predicate, thus: Man-is mortal, A-is unequal to B;

(2) The Scholastic or Traditional, which analyses into Subject, Copula (is, is not, are, are not), and Predicate, thus: Man-is-mortal; A-is-unequal to B;

(3) Dr. Mercier's analysis into what he calls Subject, Ratio, and Object, thus: A-is unequal to-B.

Dr. Mercier does not seem to have observed that in the case of *Man is mortal*, (3) is not a possible alternative to (1) or (2). If he had noticed this, it might have suggested to him that the analysis of *A is unequal to B* which he himself suggests is alternative to (1) and (2) only in the case of propositions of the form that is called Relative—propositions, that is, in which what is affirmed (or denied) is the relation of *two* things (or objects) which belong to *one* system. We could not say *A is unequal to B* unless A and B were *two* objects, one of which *is not* the other. (A) is not equal to (B). It is because Dr. Mercier has felt the inadequacy of the Subject-Copula-Predicate analysis as applied to propositions of the *A is unequal to B* type ('Relative' propositions), in which *A is not B*, that he is so dissatisfied with it. It is because he has not taken into account the very important difference between the Relative type and the Non-Relative S-is-P type of proposition, that he has denounced the traditional analysis altogether, not perceiving that for the S-is-P type, *e.g.* Man is mortal—his own analysis is bound to coincide exactly with the despised Scholastic or Traditional Analysis. So, where what Dr. Mercier calls the 'Ratio' is simply the traditional Copula (is, is not, are, are not, etc), we must either recur to the twofold Aristotelian division, or break up the proposition into the familiar three factors.

As regards Relative Propositions, the S-is-P analysis, though applicable, is not adequate, and is not the most appropriate, and Dr. Mercier is justified in complaining that the treatment of Relative Propositions *as* Relative should so often be tucked away in a corner of a page, and their importance, their extent and their distinctive character slurred over. But he really commits an error analogous to that which he blames in Formal Logic, for while Formal Logic neglects Relative Categoricals, Dr. Mercier neglects the Non-Relative Categoricals. Either omission is serious.

Dr. Mercier is, I think, fully justified (*a*) in claiming that since Traditional Logic holds the predicate of every proposition to be distributed or undistributed, it is in fact bound to admit implicit Quantification of the Predicate, and (*b*) in connecting quantification with the conversion of propositions, "according to the conventional rule". Anyone who admits the possibility and validity of ordinary logical conversion—who allows that (1) All Planets are Stars, may be converted to (2) Some Stars are Planets, but not to All Stars are Planets, admits that the Predicate-term of Categoricals is im-

plicitly quantified, and that the applications of Subject and Predicate are identical. It is one group which is both *All Planets* and *Some Stars*. It is, however, not to be expected that Dr. Mercier should do justice to a reading of propositions which he rejects, and as a matter of fact he inconsistently holds that 'qualitative' terms, such as heavy, mortal, perfect—are destitute of 'extensive' quantity, of denotation. If this is so, how are we to interpret the copula in, *e.g.*, *All men are mortal?* Every term has two, and only two, aspects or moments, the extensive, applicational or denotational (That-ness), and the intensional, qualitative or attributive (What-ness). In this case there are two intensions, and one denotation to which both intensions belong. The *meaning* (the *intension*) of man is *not* the meaning of *mortal*, nor can the extension of *men* BE the *intension* of *mortal*. The only possibility seems to be, that the *is* or *are* of the affirmative Categorical imports identity of denotation between Subject and Predicate; if not, the Copula would have to be negative, for certainly it is only in propositions of the form *A is A* that the *intension* of the Subject *is* the *intension* of the Predicate. This is why Locke declares that all our affirmations are *in concrete*, that though, *e.g.*, we can say: Man is mortal, we cannot say: Humanity is Mortality. And unless it is denotational identity of Subject and Predicate that is indicated by the Copula in affirmative Categoricals, how are we to account for the agreement of Predicates in gender and number with their Subjects, in Latin, Greek, French, German and other languages, which have not lost their inflexions to the extent to which English has? Why say: Ces soldats-ci sont braves, Quelques roses sont blanches, Diese Soldaten sind die tapfersten, Dieses Buch ist das meinige, Diese Rose ist die einzige weisse, and so on? In Quelques roses sont blanches, the only things which we *say* are *blanches* are *ces roses*, though no doubt many other things *are* 'blanc'. We are dealing with Assertion—with the Terms *as they occur and are limited* in the proposition, *i.e.* with Subject and Predicate—*not* with the bare *classes* 'rose' and 'blanc'. We are not using the Predicate in its fullest extension or application, but only as applying to the Subject of Predication, to the denotation of which it is, as so applying, necessarily restricted. Every affirmation, as well as every negation, is determination. It is at any rate clear that Identity of Denotation with diversity of Intension is a condition of 'Synthetic' affirmation which cannot be escaped. In every synthetic assertion the diverse intensions apply to one and the same thing.

What happens to a general name, whether Substantive or Adjective, that is used as Predicate in an affirmative proposition,[1] is that its denotation is fixed by the denotation of the Subject to which alone it is asserted to apply. Such restriction of denotation (and not any alteration of connotation) is the modification imposed on

[1] Compare certain Negative Propositions—*e.g.*, That bird is not *a robin*; Those roses are not *tea roses*; Vos roses ne sont pas *blanches*.

general names when they become Predicates of Propositions. If it were not so, it would not be true that Subject and Predicate in *S is P*[1] propositions have the same application (or denotation)—a statement which it seems impossible to deny.

What general account can be given of Denial, of the import of Negative propositions, on Dr. Mercier's view? I do not see that he gives us any general account of such propositions, and no theory of affirmative import can be acceptable which has not corresponding to it an intelligible theory of negation. I will illustrate the kind of thing I am asking for. If S is P, (SP), is understood to affirm Identity of denotation with Difference of intension,[2] *S is not P* —(S) (P)—asserts Otherness of denotation with difference of Intension[3] and S and P are *two* things (One and an Other) (S) (P), while what *S is P* refers to is *One thing*, (·P)· And if, *e g.*, *A is related to B*, then A and B are two things, and the relevant diagram is (A)⟷(B).

On this very simple scheme there is a theory of Negation corresponding to the theory of Affirmation, and it further provides a place for the Relative Propositions which Dr. Mercier considers as of primary—if not sole—importance. But this is only an indication, and in order to deal satisfactorily with propositions of the type *A is related to B*, *i.e.*, with Relative Propositions, we should need a System of Principles of Relation.

It may be noted that if we start from a question: Is *S is P* true?—we may get an unconditionally Categorical answer: (1) *S is P*, or *S is not P*, or (2) a Hypothetical answer: If M is P then S is P, or (3) a Modal answer: S must be P, S cannot be P, S may be P, S is probably P. It is with Non-Modal, or 'Assertoric' Categoricals and Hypotheticals that Formal Logic has been chiefly concerned. But the seeker has to ask questions—to use Mr. Broad's term he has to 'entertain' the assertion *S is P*—and a categorical answer to his question may be conditional on the fulfilment of some Hypothesis. Or again, the answer which he reaches may be a modal one. Is a Triangle equiangular? It *may* be: If it is not Isosceles or Scalene, then it is equiangular. Are the interior angles of a triangle equal to two right angles? Yes—they must be so. Are the angles at the base of a triangle equal to two right angles? Not necessarily.

Dr. Mercier has some caustic and acute remarks in his second chapter on the relation between Modal and Hypothetical or Condi-

[1] In S is P, S may stand for *All R* or *Some R*, etc., P for *Some Q*, etc.

[2] No doubt a *sameness* of intension may underlie the *difference* of intension, but with that we are not at the moment concerned.

[3] Here again sameness of intension may underlie the difference of intension.

tional Propositions. It seems difficult to combat his contention that Modal Propositions are in some cases Hypotheticals.

The doctrine of Propositions is the central topic of Book I., but in treating Induction and Deduction Dr. Mercier does not seem to be either much guided, or much hampered, by his doctrine of Propositions, and his main position is a thorough-going separation of Induction from Deduction. Induction, which is treated in Book II., he calls Empirical Reasoning, but he will not allow it the title of Inference, which he reserves for Deduction exclusively. While (according to Dr. Mercier) Inference is merely the Logic of Consistency, Empirical (or Material) Reasoning—*i.e.*, Induction—is, he holds, concerned with *Truth*. Its function is to solve questions of fact, and its method of doing this is twofold—that is, it is either by a Direct appeal to Experience—*e.g.* a piece of glass tubing is dropped on a stone floor, and it breaks, or does not break, as the case may be—or by an Indirect appeal to Experience. "The indirect appeal to Experience as I conceive its nature," Dr. Mercier says, "has not hitherto been described or even recognised by logicians either of the Traditional, the Inductive, or the Modern School . . . they do not recognise what seems to be the true nature of the indirect appeal to experience, or that it is the general mode of solving problems."

Dr. Mercier seems to deny that in the direct appeal to experience there is reasoning, and he further denies that in the indirect appeal there is Inference. The reason given for this denial is that "Inference or Deduction . . . cannot stir a step unless a *complete* premiss is given." Now it is no doubt important to recognise the contrasted attitudes of the thinker who is questioning, learning, listening, in search of fresh knowledge, and the thinker who is teaching, or speaking—explicating knowledge of which he is already in possession.[1] But this is not the whole matter. Does the admission that "We have not got Inference unless the Conclusion is necessary from the Premisses," force us to agree with Dr. Mercier that Induction is not Inference? Well, Dr. Mercier himself seems to admit that Induction *is* Inference in this sense, when he admits that in Induction from a single instance there is some further 'warrant' for the conclusion beyond the single instance. "Lurking in the background of the mind is another premiss which is not explicitly mentioned in the argument, but which is in the argument and is essential to the argument. . . . It would be impossible to argue from one case of causation to another, unless it were assumed that in experience causation is constant." If Constancy in Experience means Constancy that is "assumed" and that covers unknown as well as known, future as well as past, and if it is from this assumption that we argue in Induction, the alleged difference between Induction and Deduction with regard to Inference vanishes, and according to Dr. Mercier

[1] Compare *e.g.* Sigwart's. *Logic*. English translation. i., 25. 26.

the only fundamental difference remaining (besides the circumstance that Induction starts with a problem or question) would seem to be that it is limited to true propositions— the "real" or "material" proposition, "that is understood and accepted as referring to real existence, to fact, to an external world which is the world of experience".[1]

Deduction, he holds, "is nothing more than inference from postulates whose truth or falsity is immaterial to the argument" It is of course undoubted that Validity of Inference does not depend upon the Truth of the Premisses, and is only *ex postulato;* still deductive reasoning may endeavour of set purpose to use true propositions throughout an argument, and Induction may on occasion proceed *ex postulato.* Dr. Mercier's insistence on the fact that validity of Inference is quite independent of the truth of the premisses inferred from, may on occasion have its value, though that the fact is adequately recognised by Formal Logic is evidenced by the use made in Syllogistic doctrine of the argument *per impossibile.* This insistence on the *ex postulato* character of 'Deduction' is further interesting in connexion with the interpretation of Hypotheticals. If the proper way of stating a syllogistic reasoning is *not e.g.:*—

M is P
S is M
∴ S is P

M is P
∴ S is P (enthymeme)

A is B (elliptical
∴ C is D argument)

X is A
∴ it is B (elliptical)

but: If M is P and S is M, then S is P
If M is P, then S is P (∵ S is M)
If M is P and S is M, then R is X (∵ Q is S and R is Q and P is X)
If X is A, then it is B (∵ A is B)

then light is thrown upon the character and nature of Hypotheticals, and their relation to Categoricals, and a Hypothetical Proposition appears in the guise of an argument, complete or elliptical, in which we explicitly 'suppose' a premiss or premisses, *e.g.,* If that triangle is isoceles, the angles at the base are equal.

Or take the following case of an elliptical Hypothetical:—

If the Doctrine that Virtue is Knowledge is True, Socrates was a Great Discoverer. This proposition is highly elliptical, and the Antecedent only justifies the Consequent if we are able also to affirm other propositions, thus:—

[1] Compare Prof. Stout's view that in all cases of thinking, "the mental reference is not merely to the fact that the object is present to consciousness, but to some other kind of being which it is thought of as possessing" (*Proceedings of Aristotelian Society,* 1910-1911, p. 187.)

(1) The Doctrine that Virtue is Knowledge is a Very Important Doctrine;

∴ (2) The Originator of the Doctrine that Virtue is Knowledge is the Originator of a Very Important Doctrine;

(3) Socrates is the Originator of the Doctrine that Virtue is Knowledge;

∴ (4) Socrates is the Originator of a Very Important Doctrine.

(5) If the Doctrine that Virtue is Knowledge is True, then the Originator of the Doctrine that Virtue is Knowledge, is the Originator of a Very Important Doctrine which is True;

and (6) Socrates is the Originator of the Doctrine that Virtue is Knowledge;

∴ (7) If the Doctrine that Virtue is Knowledge is True, Socrates is the Originator of a Very Important Doctrine, which is True,

and (8) The Originator of a Very Important Doctrine which is True is a Great Discoverer;

∴ (9) Socrates is a Great Discoverer.

If we consistently stated our Categorical arguments in Hypothetical form (as Dr. M'Coll and Dr. Mercier think ought to be done in all books of Logic), we should have to present Categorical reasonings in which we wish to assert nor only the Validity of inference from premisses, but also the Truth of the premisses, in Hypothetical Syllogisms.

In mitigation of Dr. Mercier's criticism of the narrowness of the 'Traditional' Syllogism, we have to observe that the true principle of Mediate Inference is, in Syllogism, disguised by being presented as applied to *Class* Propositions, to which however it is applied with a skill amounting almost to genius. What is indispensable for Mediate Inference is Identification (of part or all) of the denotation of the Middle Term in one Premiss with its denotation in the other Premiss. That this is recognised by the traditional Formal Logic is shown by the unremitting demand for a Distributed Middle. Such a link of denotational identity is everywhere sufficient to secure connexion between Premisses and Conclusion. In many cases indeed (including the case of all Universals) it is from co-existence of Intensions that we argue to Identity of denotation. It is, *e.g.*, because of the (assumed) connexion between Animality and Mortality that we can say *All* men are mortal; but in cases where the intensional connexion is not known to us, we can still argue safely on the basis of a known denotational oneness which, however, we do constantly on reflexion surmise to depend on (unknown) uniformities of co-existence between attributes— on what Bacon calls *Form*.

In conclusion, I would emphasise once more the two outstanding merits of Dr. Mercier's book: (1) It is not only very readable but genuinely interesting; (2) it does direct attention to important defects of the Traditional Logic which it attacks, *e.g.*, the neglect of 'Relative' Propositions, the narrow scope of Syllo-

gistic reasoning, the loss both to Logic and to Life which results from the frequent failure of logicians to exhibit their Science in vital relation to thought and conduct.

E. E. C. JONES.

Traité de Logique Générale et de Logique Formelle. CH. RENOUVIER. 2 vols. Pp. ix, 397, and 381. Librairie, Armand Colin.

THESE two volumes form the first of Renouvier's three *Essais de critique générale* which are now being republished. Renouvier's work is of some interest at the present time; for he was a convinced finitist, and based a number of metaphysical arguments on his rejection of infinity. It is therefore of interest to see whether his objections have any weight against modern mathematical notions of the infinite with which he was not acquainted. The work is of great (and I think unnecessary) length; it is interspersed with long notes called 'observations and developments' which consist partly of defences and polemics against other thinkers—mainly Mill and Spencer—and partly of further explanations of the author's own views. These notes are often a welcome addition, and perhaps contain the most interesting parts of the book. The second volume, and particularly the last part of it, is probably what will most attract the general philosophical reader.

It is impossible to give a detailed criticism of 780 pages of the most varied matter, and I will content myself with trying to indicate Renouvier's general position and dealing with some special points that strike me as important.

The work claims to be one of analysis of what we can know and do believe ourselves to think about rather than a discussion as to the certainty of belief. All that we can hope to know anything about is representations. These are always two-sided, being analysable into a representing and a represented side; but, though the difference is recognisable, we have not here two existentially separable elements. This does not reduce us to Solipsism, because it is only to representations in general not to *my* representations that human knowledge is confined. And representations do not presuppose substantial selves of which they are states; for, on the contrary, selves are complexes of related representations. If anything could exist apart from being represented it would seem to be such things as extension and duration; but the nature of represented extension and duration (their being continua) is, Renouvier thinks, incompatible with their existence except as objects of re-

presentation, owing to the contradiction which he finds in an actually infinite number. Hence if they exist at all apart from representation they are entirely different from the only extension and duration that we know. Similarly he holds the more generally accepted view that there could be no reason to think that anything exists like the representing side of a representation apart from a represented side too.

Renouvier insists that all that is known is relative (and, so far as I can see) that all that is knowable is relations. Nevertheless analysis does not lead us to an infinite regress, because in the perceptible world we end with irreducible syntheses, and in the world of abstract categories with correlative terms (like part and whole), and the web of relations is a closed one, not one that diverges in infinite lines. The relations of phenomena exhibit a definite order; these types of order are laws, and may be called general phenomena. (His notion of law explicitly includes universals.)

In the third part Renouvier deals with the Categories, which are the ultimate and irreducible laws of knowledge, and, though first recognised in particular experience, are the preconditions of any possible experience. (It is particularly important here to remember his wider meaning of law.) All the categories are syntheses of opposed correlatives, and his list starts with Relation and ends with Personality. In a sense these are the two fundamental ones, because all are special cases of Relation, whilst all involve Personality just because they are laws of representation. All judgments are both analytic and synthetic because all assert identity in some respect together with difference in others. But in a special sense all definitions and all that logically follows from them are analytic (*i.e.* the terms of the judgment can be distinguished but cannot be represented apart from each other). There are *à priori* synthetic judgments too. These assert relations between categories as *e.g.* 'every event has a cause' which asserts a relation between becoming and causation. He holds that all the laws of logic are logically equivalent and are developed out of the principle that you must understand what you are talking about.

Renouvier then discusses the categories *seriatim*. In a number of long notes to the category of quantity he deals with fractional, negative, and irrational numbers, and the infinitesimal calculus. His treatment of Causality and End introduces the notion of Real Possibility. He does not decide the question, but says that logic has nothing to object to this notion. A note to the Category of Personality contains some good criticisms of Associationism, and connects the doctrine of faculties with the irreducibility of the categories.

The last part of the book deals with the limits of science. He first decides that there are no genuine antinomies. The fact that

the categories are syntheses of opposites is not an objection to them, for the opposites are not applied in the same sense to the same things. And, as a convinced finitist, he rejects the antitheses of the Kantian antinomies for contradicting the Law of Number, whilst he finds the theses logically harmless (the arguments against them being mere unjustifiable inductions to the whole of what is true of its parts). The worst that can be said against the theses is that they are incomprehensible; and this seems merely to mean that *e.g.* we can't hope to tell exactly how large the world is or how long it has lasted, though it must have a definite size and have lasted a finite time. It is interesting to note that he thinks that his notion of Real Possibilities frees him from the necessity of assuming a last event, though not from that of assuming a first one. Finally, under the category of Personality, there is a long discussion of such topics as Creation, Emanation, Monism, etc., and Renouvier concludes that the difficulties of assuming a single creative mind at the beginning are insuperable and we are forced to suppose an original plurality of minds, though we cannot know their number or relations, and thus cannot know the ground-plan of the whole universe even if there be one, which, if the hypothesis of real possibilities be true, there cannot be. This, however, cannot affect the validity of the special sciences, and our complete ignorance of the origin of the universe leaves room for all theistic beliefs which do not necessitate a single creative God.

Such is the main argument of this book. It only remains for me to choose a few of the many points that offer themselves for criticism. I propose to say a few words about Representation, The Law of Number, and the Doctrine of Real Possibilities, and to criticise some statements that are made in his treatment of particular categories.

I think Renouvier's main motive in introducing representation at the very beginning of the book is the following: Whatever we can talk or know about must, while we talk and know about it, stand in some relation to our minds (this is of course a tautology, but Renouvier says that we have to begin with tautologies). Hence it seems plausible to say that the real elements of the world given before all analysis are representations and not objects which are reached by analysing them. This seems plausible, but it is not true; what *our* knowledge starts with is not representations but things represented; we do not become aware of represented objects by analysing our representions, but first become aware of objects and then aware that they are objects, and thus one side of a two sided thing called a representation. Thus the ultimate data for us are not representations, nor even objects known as represented, but objects which as a matter of fact are represented but are not at first thought of as such. When we come to notice that all our data in this sense always existed so long as they were data for us

as objects of our representations the further question of whether there is any reason to believe that they and things like them can also exist out of such complexes of course arises. It seems to me that on this last question Renouvier is very inadequate. His argument is that if there are to be things that are not objects of representation they must at least resemble in some respects the objects of our representations or we could know nothing about them. This is of course true in the sense that they must be capable of description in terms with which we are acquainted. He then tries to prove that in the case of all continua the nature of the object is such that nothing like it could exist apart from a representation. But supposing his objection to infinity to be valid I cannot see how he avoids the following dilemma: While we perceive an extended object that object exists. Now either represented extension has a finite or an infinite number of parts. If the former there is no objection to an unrepresented extension; if the latter there is no objection to the existence of an actual infinite, since one actually exists in a represented extension. I understand Renouvier's position to be that even the represented extension is not actually infinitely divided, but that we can simply always think of a smaller piece than we actually are given, whilst what *exists* in the object is only those divisions that are given. But if an infinite divisibility be not a quality of represented extension, but only a result of our thoughts about it, I fail to see why something exactly like represented extension, should not exist unperceived. It is further to be noted that Renouvier has to hold (*a*) that there are minimum distances in the world, and (*b*) that we never perceive them. If then extension only exists when perceived it would be interesting to know who previously does perceive them, and how they exist if no one does so

This brings us to the celebrated Law of Number of which the author makes so much use. It seems to me quite worthless. All that we are repeatedly told is that an infinite number would be one greater than any given number, therefore an infinite given number is a contradiction in terms (presumably because it would be greater than itself). But why define an infinite number in this way? Suppose you say that an infinite number is greater than any that can be reached by successive additions of one to any finite number, then the contradiction disappears. My impression is that Renouvier always regards an infinite number as the last term of the series of inductive numbers, which naturally leads to difficulties. It should be noted here that Renouvier confuses numbers and the aggregates of which they are the numbers; he tells us that numbers are wholes and their units are their parts. Yet he talks of applying number to other things considered as wholes of parts, so that I suppose he would have to say that the number of inches in a foot is twelve because it is the same as the number of ones in twelve, so that twelve not only is a number but has a number. Yet

Renouvier seems to accept an infinite number of possibilities, because he says that it is not a *given* infinite whole. Let us then consider his theory about possibilities.

I am not at all certain that I understand this; and I am not clear whether the view put forward in various places in the second volume, especially page 115 *et seq.*, is or is supposed to be the same as that which in the first volume explains how represented extension can be called infinitely divisible. Renouvier says that there is nothing contrary to logic in supposing that the future is indeterminate; that most people believe it; and, so far as I can see, that the experimental verification of the law of large numbers is at least a presumption that where we have no grounds for expecting one alternative rather than another the two alternatives are really equally probable in themselves. This would imply that they are in themselves both possible. In one sense I agree with Renouvier. It seems to me perfectly possible that there are events that cannot even theoretically be predicted because they are not connected with any selection of other events by general laws. And I am ready to admit that the distinction between a determined and a partly undetermined event is that the probability of the former relative to all theoretically available data is 1 or 0, whilst that of the latter is intermediate. But I see no reason to accept the very startling view that propositions asserting the occurrence of such undetermined events in the future are not already true or false, and therefore capable of being known by any mind that could be acquainted with the future in the same immediate way as we are acquainted with parts of the past by memory. In the sense that what is going to happen is already definite, determinism is demanded by the Law of Excluded Middle which I see no reason to reject. If I understand him aright Renouvier rejects the laws of logic for propositions about the future if there be real possibilities. I see no reason to do this, and it is hardly compatible with his view that all the laws of logic are developed out of the demand to know what you are talking about. Renouvier sometimes speaks as if an infinity of possibles were harmless, for instance he has the curious argument against an omniscient mind that it could not know all geometry because the number of possible geometrical propositions is indefinite, whilst—I suppose—to know them all would be to have an infinite number of coexisting states of mind. But surely all these propositions are definite and distinct; if the knowledge of them would be an infinite number of distinct acts the propositions themselves must form an infinite aggregate of distinct elements, which ought to be impossible on Renouvier's views. I may possibly be unfair to the author here, for I find his position about possibilities and infinity very difficult to grasp.

I have only space for a few criticisms on particular points. Renouvier fails to grasp the essential difference between an individual and a universal, and thus fails to recognise that there

are two different syllogisms in Barbara. His theory of judgment which professes to avoid the notion of substance seems to me to be much tied to the notion of material things. Thus it is plausible to say that when I call this pillar-box red I mean that redness or an instance of redness is part of a whole complex which I call the pillar-box; but it is much less plausible to analyse 'red is a colour' in this way. If red be a complex it is at any rate a very different kind from a pillar-box, and it is essential for logic not to slur the difference.

In conclusion I would say that the book is well worth reading once quickly all through and then for a second time carefully with large and judicious 'skipping'. A word of praise is due to the excellent print and margins of this edition. There are few misprints, but on page 355 'immortalité' masquerades as 'immoralité':—happily with no disastrous consequences to either.

C. D. Broad.

Pragmatism and Idealism. By William Caldwell, M.A., D.Sc., Sir William Macdonald, Professor of Moral Philosophy, McGill University, Montreal. London, A. & C. Black, 1913. Pp. viii, 265.

When Pragmatism made its first appearance in our midst it proclaimed what seemed to be a clear and definite doctrine. It was not a new doctrine, indeed it was said to be very old, older than Plato, but it sounded strange and it fell with startling abruptness—a sudden splash ruffling the calm, flowing waters of idealism. It came from America but it was proclaimed in Oxford, securing a settlement, welcome or unwelcome, in the very home of authoritative philosophy. It showed no respect to persons or to systems, loudly demanding that every doctrine should justify its cash value, sometimes indeed insisting on the literal sense of the expression. It was a new doctrine of the nature of truth, the doctrine that truth is a value like goodness and beauty. It assailed the logical theories of truth, declared that truth was not logical in the formal sense—the ideal of consistency and harmony—but psychological, dependent on dispositions such as belief, and practical activity such as verification. It came to be known by the short and familiar maxim "Truth is what works". It met fierce opposition from realist and idealist alike, but though the doctrine came in so palpable a shape that it seemed to invite the easy test of a clear issue, those who thought to grasp it and give it its logical *coup-de-grâce* found it as elusive as when one tries to grasp an eel. So now it has come about that pragmatism is seldom spoken of as a

doctrine, it is referred to as a movement or tendency in philosophy. There has fallen on it something like the fate that has overtaken socialism, a doctrine which began with startling revolutionary formulas such as "property is theft" and now has come to indicate every vague aspiration or attempt at social reform so that we can comfortably accept the saying "we are all socialists now". And so here we have Prof. Caldwell in his new book tracing for us the pragmatist movement. Pragmatism is a kind of leaven spreading its influence through the lump. He finds the manifestation of its influence in the most unlikely places, even affecting that high priest of intellectualism, Mr. Bernard Bosanquet, for does not he speak in the Gifford Lectures of *belief* and *conviction* with definite pragmatic meaning? And finally it has produced M. Bergson, "the greatest of all the pragmatists," although it is admitted that there is no actual justification in his writings for classing him among them.

But there are very grave disadvantages in this treatment of pragmatism and it leads to incongruous results. Take, for instance, the three quotations illustrative of the fundamental contentions of the pragmatists that Prof. Caldwell has chosen from William James, Dewey and Schiller (p. 19). They are too long to quote and it is not necessary to do so, it is enough to say that each is a clear statement of the very definite doctrine of the nature of truth that pragmatism proclaims. I am not so rash as to say that they are free from ambiguity or that they indicate all the protean forms the doctrine can assume, but they proclaim a doctrine in striking contrast to the commonly accepted meaning of truth. Now treat this doctrine as a tendency and what becomes of it? A mere commonplace to express any and every recognition that the practical, as distinct from the purely theoretical, reason must be taken into account in philosophy. And we see what it leads to. We have such practical maxims as Prof. Caldwell quotes in a note on page 31 as examples of Catholic Pragmatism set forth as instances of pragmatist doctrine. "When we say 'Jesus is risen from the dead' we mean 'treat Him as if He were contemporary'." An excellent maxim to preach to the faithful, but could any one of the authors just mentioned accept this as an application of their doctrine of the nature of truth? To me it is to empty pragmatism of all philosophical meaning. Let not the reader suppose that this represents what Prof. Caldwell has traced for us in the history of the Pragmatist movement. It is only an illustration of how thin is the *tendency* as compared with the thickness of the *doctrine*. Prof. Caldwell has given a very full and useful account of the individual leaders of pragmatism in the various countries, as well as of the real or fancied effects that the doctrine has had on those who do not profess it or who vehemently reject it.

In his exposition and criticism Prof. Caldwell treats Pragmatism as mainly directed against the correspondence theory of truth. He sees, quite rightly as it appears to me, that the pragmatist theory

is in its essentials a coherence theory, but then he discovers, apparently to his surprise, that idealism was already in the field opposing the correspondence notion with a theory of coherence. "Unfortunately for the pragmatists," he says on page 83, "the rejection of the correspondence notion is just as important a feature of Idealism as it is of Pragmatism." He has clearly failed here to appreciate what was the real objective of Pragmatism when it entered the lists and challenged the prevailing philosophy. It was not directed against the correspondence notion of truth, it regarded that notion as already hopelessly discredited, it was directed against the coherence notion as represented by the idealist theory of the Absolute. Its artillery was trained on the logic, or rather on the notion of an agency in logic, the notion of a creative logic, on which the theory of the Absolute rested.

The fury and rage of that controversy has died down and we can now, as Prof. Caldwell does, attempt to take stock of the gain and the loss. How do we stand to-day? Pragmatism and Idealism he finds are represented by two philosophers who, sharply contrasted as their doctrines are, have neither of them had any part in the controversy. In the recently published Gifford Lectures of Mr. Bosanquet, Prof. Caldwell recognises and criticises what he regards as the most vital and powerful presentment of the case for rationalism, and in M. Bergson's writings he sees the full outcome of the tendency of pragmatism. He accepts neither, but the question of main interest is the relation of Bergson to pragmatism. In what sense if any is Bergson a pragmatist?

I agree that there is a pragmatist element in Bergson's philosophy, but it does not lie in either of the doctrines that Prof. Caldwell in common with many other commentators and critics has indicated. It lies neither in the doctrine of the practical nature and origin of the intellect nor in what is here called activism or actionism (why must we have these uncouth terms?), the doctrine that experience can only be interpreted from the standpoint of action. These are not pragmatist doctrines and their relation to pragmatism is in mere outward appearance only. Bergson's pragmatism is more profound, more fundamental, it is implied in the doctrine of *une réalité qui se fait*. To treat what is sometimes, it seems to me absurdly, called Bergson's attack on the intellect as a pragmatist doctrine is the crowning example of the confusion that follows from treating pragmatism as a movement and not as a definite doctrine. What is Bergson's theory of the intellect? It is that there are two modes of the apprehension of reality, intellect and intuition, that the former has been developed in us in the course of our evolution so that it has become the prevailing type of our activity and serves our activity. What has this to do with the nature of truth? It is as consistent with the notion that truth is correspondence or coherence as it is with the pragmatist doctrine that it is a value or good which we ourselves create. Equally far

from the mark are those who reply to the pragmatists that Bergson's theory is exactly the reverse of their doctrine,—who say that Bergson teaches that not truth but error is the good that the intellect places at the service of our activity. Is it not, they say, by the deformation or distortion of reality, by the illusion of immobility, that our action is rendered possible? It is not truth then but error that works and to know truth we must disembarrass ourselves of intellectual apprehension, reverse the natural bent of our mind, for only in the intuition of life do we possess truth. No. The doctrine that life is the ultimate reality and logic is dependent on the mode of intellectual apprehension is not identical with the pragmatist doctrine that truth is a practical postulate verified in working, nor is it an outcome or product of the pragmatist movement. It is a new standpoint that cannot be classed with pragmatism any more than it can be classed with idealism or realism. But there is a profound sense in which Bergson teaches that we make truth. This is in his doctrine of creation, of freedom, of real becoming. It involves the absolute rejection of the notion of a complete universe either mechanically and materially, or teleologically and spiritually, determined, a universe in which *tout est donné*, in which nothing really new can happen. Reality is making itself. Each of us as part of the ultimate living movement is bringing something new into existence. We are limited on every side and in every direction, but there is freedom at the heart of things, we are centres of indetermination. We are only able to effect anything by narrowing and concentrating our activity and by using as an instrument the *réalité qui se défait* which stands opposed to us, but ultimate reality is not the already made but that which is making. To the extent then that we are a free activity in an open universe we are in the full sense of pragmatist doctrine making truth. If this be the meaning of Pragmatism, if this is what pragmatists with their apparent paradox are really striving to express, then we may agree with Prof. Caldwell that Bergson is the greatest of the pragmatists.

H. WILDON CARR.

De Kennisleer van het Anglo-Amerikaansch Pragmatisme. By T. B. MULLER. Pp. 468. 'S Gravenhage: H. P. le Swart & Zorn, 1913.

PRAGMATISTS are to be congratulated on the accession to their ranks of the author of this book, a young South African of Dutch descent, who promises to become, if one may judge from the zeal of his advocacy, the prophet of Pragmatism in the country of his birth.

Unfortunately, the Hollands in which the book is written will prevent it from finding as many readers among English-speaking students as it deserves. Mr. Muller has not indeed attempted to make any original additions to the Pragmatic Theory, but I know of no more comprehensive and systematic survey of the whole movement. Mr. Muller has done for Pragmatists what, so far, they have failed to do for themselves: from collections of essays, from books and published lectures, from scattered articles, he has gathered their arguments together, marshalled them under suitable headings, and presented them as a coherent whole. His knowledge of the relevant literature, as shown by quotations and references, is exceedingly accurate and extensive. And he writes throughout with the sympathy of one who believes in the value of Pragmatism for present-day philosophy. 'Pragmatism is essential to the reform of Logic.' 'Not Kant, but Pragmatism, has refuted Hume.' These are two of the 'Stellingen' which Mr. Muller undertook to uphold on the occasion of taking his degree of 'Doctor in de Godgeleerdheid' at Utrecht.

After an Introduction, in which Mr. Muller deals out some hard knocks to certain Dutch critics of Pragmatism, he sets himself to expound the real meaning of Pragmatism. In chapter i. the general character of Pragmatism as a 'reaction against Intellectualism' is emphasised, largely by means of a survey of philosophical movements in England during the nineteenth century. Here, among the affiliations of Pragmatism, the author misses a point in failing to recognise the Pragmatist strain in Mr. Bradley. *Quâ* Absolutist, Mr. Bradley condemns all concepts as 'riddled with contradiction,' *âqu* Pragmatist, he acknowledges them to be 'practical makeshifts,' 'devices' which, however 'indefensible,' are none the less 'indispensable'. Pragmatism precisely rejects the former and keeps the latter half of this view: a truth is a device of thought which works successfully in practice.

Chapter ii. deals with the 'Practical Motive'; chapter iii. with the 'Social Influences,' which have *e.g.* given Pragmatism its 'democratic' character. Here, I think, Mr. Muller is a little too ready to endorse the use of the catch-words 'academic' and 'democratic,' as if in philosophy the former were necessarily a term of reproach and the latter of virtue. A philosophy which is nothing but the esoteric amusement of professors is certainly a poor thing. But no less certainly poor is one which cuts its theories down to the measure of the average mind. Mr. Muller has read his Plato to little purpose if he has not learnt that the pursuit of philosophy demands exceptional qualities of mind. Knowledge has degrees; in other words, some minds see deeper into the nature of things than others. It avails nothing to set up against this the minimum which will satisfy the intellectual demands of the man in the street. The point may be put pragmatically. Granted that we all think 'experimentally' and accept as true the theories which 'work' in

our experience, may not some 'successes' be illusory, and some minds too cheaply satisfied? So, again, it is very fine to appeal to 'concrete life in all its fulness' (p. 87) both as the 'starting-point' of philosophy and as the 'test' of all 'abstract' theories. But when we ask in what this fulness of concrete life consists, we get nothing more definite than 'practical activities' and 'immediate personal experience' (p. 86). Now whatever virtue these terms may have as challenging the false abstractness of certain theories, Mr. Muller will probably admit that they are themselves in need of criticism and elucidation. The point is really very simple: some men's experiences are deep and vital and significant, those of others remain shallow and superficial. There is no denying these differences of quality and value, and it makes all the difference, therefore, on what kind of experience we draw for philosophical theory. The current phrase about 'taking experiences at their face-value,' if it forbids discrimination, sets up a false standard for philosophy.

The central portion of the book consists of six chapters on 'Scientific Factors,' setting forth in detail the application of pragmatic methods in Formal Logic, Mathematics, Physics, Biology, and Psychology. Of these sciences Mathematics is, at first sight, the one which seems most remote from Pragmatism in its methods, but Mr. Muller quotes M. Poincaré with great effect in support of the pragmatic character of the fundamental concepts of Mathematics, as against the 'Realism' of Mr. Bertrand Russell, who declares the relation to mind to be 'totally irrelevant'. Here and elsewhere (*cf. e.g.* pp. 56-58 and 369) Mr. Muller makes some interesting criticisms on the position of the Neo-Realists.

The book concludes with three chapters on 'Meaning,' 'Truth,' and 'Ethics, Metaphysics, and Religion'. The last contains the only note of criticism on Pragmatism which I have observed. Whilst acknowledging the value of Pragmatism for religion, Mr. Muller holds that in the theories of Prof. James and Dr. Schiller the consciousness of God is based too exclusively on 'purely moral foundations' (p. 464). In dealing with Truth, Mr. Muller seems to underrate the value of the conception of truth as the 'whole'. It is arguable that the metaphysical conception of an absolute and all-inclusive experience deprives human efforts after truth of all their meaning. But to the theory of scientific, as well as philosophical, method the conception of truth as a self-consistent system has made an important contribution. And it can be so interpreted as to include the Pragmatists' 'working' and 'verification'.

To conclude with a small point: What evidence is there for classing Mr. Joseph among 'Absolutists' (p. 44)?

R. F. Alfred Hoernlé.

VII.—NEW BOOKS.

Encyclopædia of the Philosophical Sciences. Vol. I., *Logic.* Pp. x, 269. Macmillan.

This volume is the first of a series to be issued under the editorship of Sir Henry Jones and Arnold Ruge. The translation of the articles has been well done by B. Ethel Meyer. In the absence of the originals the only criticism that I have to make on her work is that 'Natrium' in Loskij's article is not an English word, but is the German for Sodium. There is also either a misprint or a bad grammatical mistake on page 61.

The book opens with an introduction by Ruge who contrasts and compares the scheme of the series with that of Hegel's *Encyclopædia.* In the existing state of knowledge, he says, we can only expect contributions from various thinkers based on the present condition of the particular sciences, not a complete account of the nature of Reality from a single philosopher. The contributors to this volume are Windelband, Royce, Couturat, Croce, Enriques, and Loskij. All the articles except Croce's have merit, but I do not think that any greatly advances the subject; and the scheme seems to me to suffer from the defect that no writer has space to offer as full an account of his own point of view as he could give (and often has given) in his own works. Much the most interesting contribution seems to me to be Royce's, who alone ventures to say much about induction.

Windelband begins by tracing the relation of Logic to the special sciences, to psychology—descriptive and genetic—and to language. His conclusion is that Logic must take the results and methods of the sciences as in the main sound, but must criticise and compare them. The only connexion with psychology is that unless we have a definite psychological terminology we cannot state unambiguously what kind of mental states are capable of truth or falsehood. The connexion with language is that truth claims to be valid for all men, that this introduces a social reference and so necessitates a definite view about the possibility of unambiguous communication of judgments. He seems to hold that the coherence theory of truth is the one that we must actually use as our test, but that at every stage there lurks behind it a notion of correspondence. I would prefer to say that we all know that coherence is not what we *mean* by truth, but also know that with certain presuppositions it is a good test for it. As to the question of correspondence Windelband says that the relation between the content of valid thought and what exists need not be the same in all sciences. He adopts Lotze's expression of *valid* to describe the mode of being of relations and universals, and holds that these do not exist but are 'the form and order under which what exists is determined'. He then adds that if you insist on ascribing being to such an order you will have to conceive it either as an unknowable thing-in-itself or as psychical. He offers no reasons that I can see for the first alternative. I suppose that he must base his opinion here on some such argument as that of the *Parmenides;* his argument in support of the view that you will have to take relations and universals as psychical seems to be that they only become actual in one sense when actually

thought about. But since he admits that in another sense they are entirely independent of any one's opinions, and that the mind that would have to be assumed is utterly different from ours, I do not see why he should think that people must come to this conclusion which he himself rejects. With regard to the truth of the sciences as a whole his view is that, though we are not directly acquainted in perception with the real world, yet the special sciences do give us genuine knowledge, as far as they go, about fragments of it.

Windelband argues that the Laws of Thought are actual laws of the real world, and that they only have their sense of 'ought' as regards fallible thinkers. This seems to me true, but I cannot follow him in some of his applications of the view. He says, for instance, that in Probability we go against the Law of Sufficient Reason because we there assert without a sufficient ground. But what we really do is not to assert something without sufficient ground, but to assert with sufficient ground that this something has such and such a probability. How otherwise could we talk of justifiable and unjustifiable assertions about probability? There are many other points in the article which might be criticised if space allowed.

Couturat's article on symbolic logic is, I think, rather disappointing. A modern treatment of the subject should certainly tell us more of the doctrine of types, and his definition of the identity of two individuals sins against this doctrine by introducing the notion of all functions. I also seem to detect some confusions. We are told that a judgment is an assertion of a fact; it is true if the fact is real, false if it does not exist. But neither Couturat nor any of the other contributors enter into the difficult question of what false judgments are really about, which is as old as Plato and has been the subject of valuable work in recent years by Meinong, Stout, Russell, and others. On page 149 Couturat suddenly introduces the notions of *the true* and *the false*, and talks of their implications. But he has previously been talking of propositions and their implications; now the true and the false are not propositions but values of them, and he ought surely to give a new definition of implication here or some justification for still using the old one. On the same page there seems to be a confusion between the senses of value. He says that propositions can only have two values (true or false) whilst functions can have an indefinite number. Surely there is no analogy between the truth of a proposition and a constant value of a function.

Couturat connects probability with functions, as distinct from propositions, and defines it as the ratio of the number of values for which the function is true to the number for which it is significant. But surely this cannot be the whole meaning of probability, since the definition is only plausible if you add that all the values are equally probable, and so the definition itself involves the notion to be defined. Neither do Couturat's grounds for denying that probability can apply to propositions (*viz.*, the fact that every proposition is either true or false) seem to me at all conclusive. On page 161 I must note the bad misprint of $<\phi$ for $<_\phi$.

Royce's article is an attempt to exhibit Logic as a science of order. It begins with what seems to me a very excellent account of inductive reasoning. Inductive generalisation cannot depend on such principles as the Uniformity of Nature or the Principle of Sufficient Reason; because these are *general* laws, whilst we know that in particular cases we can generalise and in others not, and the question how far generalisation in a given sphere can be trusted has to be left to the experts in that sphere. I agree with Royce's conclusion here, but I am doubtful as to the validity of his argument. If it be possible to give a general account

of induction at all it must rest on a general principle: his own account does this, though his principle is a law of logic not of the empirical world. His own theory assumes (1) a finite and determinate range of objects, and (2) the notion of 'a fair sample'; but (3) it does not assume laws of nature. If we define a fair sample as one chosen with no special motive it can be proved that more of such samples will closely resemble the whole in composition than not. Hence if you judge the whole from the sample you will be much more often nearly right than not. And the advantage of the expert is that he knows what is a fair sample in his field of work.

It is to be noted that here the definition of a fair sample must have shifted; it was originally defined as one chosen with no ulterior motive, but increasing knowledge of a given sphere will not make you less likely to have ulterior motives in your choice of samples. Royce then applies this principle to the justification of hypothetico-deductive theories. Their advantages are (*a*) that the innumerable mathematical results offer a vast field of samples, and (*b*) the complete definiteness of the concepts used makes the agreement or disagreement of an empirical sample with a predicted result absolutely determinate. I do not think that Royce sees one difficulty that seems to me serious. It is this. The number of results deducible from a mathematical theory is infinite. The number of observable samples is finite. But his original argument rested on the assumption of a limited region to choose from. Does the observed agreement with the results of theory, however far-reaching, really then add appreciably to the probability of the theory without some further assumption?

So far Royce's results have only been connected with order in that it is the order and law of the system of mathematical concepts that make the hypothetico-deductive method so valuable. He next goes into the question of conceptual order more thoroughly for its own sake. There is much here that I should like to criticise if I had space. His difficulty seems to be that, whilst some logical concepts, *e.g.* class, are necessary, in that they are asserted in the act of trying to deny them, others are only suggested by experience. He wants to be able to found all logic and mathematics (*plus* the innumerable non-quantitative sciences of order that he foresees) on purely necessary concepts. And he thinks that this can be done by the development of Kempe's Theory which he made in a paper some years ago. Here he hardly has space to make his theory plausible; I certainly cannot see how logical concepts can be put in terms of acts of rational choice, which I should have thought presupposed them. Those who are interested in Kempe's own theory which is purely logical may be referred to the last volume of Schröder where it is fully stated and discussed.

There are only two points that I need mention about Enriques' contribution. (1) He objects to Peano's distinction between the two kinds of syllogism in Barbara. He says that in the syllogism 'The apostles are 12. Peter and Paul are apostles, ∴ Peter and Paul are 12,' what alters is not the copula but the middle term, which is the class in the major premise and the abstractum of the class in the minor. But, even so, I should have thought that the relation between a sub-class and a class that contains it would probably be different from that between an individual and an abstractum of a class, which would be all that Peano would need. (2) He seems to think that the applicability of the laws of logic to the existent changing world is not absolute, but depends on the fact that many things change very slowly. Surely this is absolutely irrelevant. If nothing in the empirical world were the same at any two moments of time the laws of logic would equally apply to it.

Loskij's article is a plea for Realism. It seems singularlny aïve to us, since he has evidently not heard of the English and American movement in this direction that has been going on for so long now. It is more curious that he does not seem to know of Meinong and his school. He says that the relation of subject and predicate is one of ground and consequent, and is always necessary. In judgments of preception like 'This rose is red,' based on analysing a perceived complex, we do not see the necessity because we fail to see all the intermediate links which are apparently infinite in number. As this makes *all* propositions necessary and as he does not tell us what he means by that word, these results need not greatly disturb us. We are also told that, since logical laws are laws of the object, and since thought merely recognises them, thought cannot go wrong. It is only the substitution of 'fancy' for it that leads to error. Unfortunately no explanation is offered of why we fancy that fancy is thought in such cases.

Finally it is my unpleasant duty to express surprise that an article so offensive in tone as Croce's was included in this book without emendation. No one is under any obligation to read or understand symbolic logic, but, if he cannot do so, he should speak with modesty of distinguished workers in another sphere. To present in a patronising way a travesty of the methods and results of such men as Frege, Peano, and Russell; to refer to them *de haut en bas* as 'deserving authors'; and to congratulate oneself on the habit of a 'decent and comprehensible' mode of expression; —these impertinences can only cover a writer with deserved ridicule, and are singularly tactless in view of the logical leanings of at least three of the other contributors.

C. D. Broad.

Proceedings of the Aristotelian Society, 1912-13. Williams & Norgate. Pp. 375.

The thirteenth volume of the new series of *Proceedings* of this Society opens with a paper on the "Notion of Cause," by Mr. Russell. Bergson comes in for a full share of discussion, points in his philosophy being treated by Miss Costelloe ("What Bergson Means by 'Interpenetration'"), Miss Stebbing ("The Notion of Truth in Bergson's *Theory of Knowledge*"), and Prof. Robinson ("Memory and Consciousness"). There are two papers on volition: "The Nature of Willing," by Dr. Dawes Hicks, and "The Analysis of Volition," by Prof. Hoernlé. Prof. Hoernlé also contributes to a symposium together with Prof. Stout and Mr. Barker on the question: Can there be anything Obscure or Implicit in a Mental State? Miss Jones deals with Dr. Mercier's Logic, Dr. Wolf with the Philosophy of Probability; and there are papers on "Purpose and Evolution," by Mr. Lynch, on "Intuitional Thinking," by Prof. Granger, and on "Kant's Transcendental Æsthetic," by Mr. Carlile. There is also a short abstract of a paper by Prof. Jacks on "Does Consciousness Evolve?"

Mr. Russell's paper severely criticises the current notions held by philosophers as to what scientists mean by the Law of Causation. He points out that necessity has a special reference to propositions considered as values of propositional function which are true for all permissible values of some variable. He then discusses the difficulties introduced into ordinary notions of causation by recognising (*a*) that there are no 'next' events, and (*b*) that to recur an event must be more or less abstract; and points out the many errors that have sprung from assimilating causation to human volition. What the advanced sciences

use are functional interrelations, where there is neither cause nor effect in the old sense of those terms. When we are clear about what is meant by determination (*viz.* functional correlation) we see that the future determines the past as much as the past the future, that a system may have many different sets of determinants, and therefore that even if the world be completely determined mechanically this is no proof that it is not *also* completely determined teleologically. Laws are rendered probable by experienced agreement with them apart from any prior assumption that Nature is uniform, but if you take absolute time as itself a determinant *any* system will be deterministic. Actually scientific laws only involve intervals of time; but at every moment an infinity of previously possible laws are disproved, and the laws of science are merely the simplest of the laws which fit the observed facts up to the present, so that there is no guarantee that they themselves will not be shown by experience to be too simple.

Dr. Wolf's paper deals with somewhat similar subjects to Mr. Russell's. He holds that probability has little meaning for a purely indeterminist world, rather more for a purely determinist one, and most for a world that is a mixture of the two. This last possibility is the one in which common sense inclines to believe. Dr. Wolf admits the difficulty of conceiving a completely indeterminist world, and it seems to me that he himself has fallen into a confusion about it. Clearly it means (and he intends it to mean) a world where there *are* no laws, not merely one where we do not know or suppose there to be any. He denies that in such a world the fact that we had always found A and B together would be any ground for expecting to find them together again. This seems to me false. All that is implied by saying that the world is completely indeterministic is that there are no laws in it. This means that All A's are B's is false. If this be one of our data (*i.e.* if we are supposed to *know* that the world is indeterministic) this will be no ground against our concluding from our experience that probably a large percentage of A's are B's, and therefore that it is more likely than not that any A found will be a B. And if we do not *know* that the world is indeterministic it may be true that our results make it probable that all A's are B's. This proposition will be false indeed, but on given data a false proposition may be more probable than a true one.

The symposium is on a singularly interesting and difficult subject. Mr. Barker argues that it is *a priori* impossible that there should be distinct elements in an object of consciousness which are not recognised as distinct. He therefore concludes that the notion of 'implicit' in such a connexion is a fiction. The notion of obscurity, on the other hand, has a meaning, but it refers to the cognitive value of the psychological object, not to any intrinsic quality of it. Prof. Stout simply rejects the *a priori* impossibility and then produces facts which he thinks can be explained by assuming implicit elements and not otherwise. Prof. Hoernlé contents himself with pointing out certain ambiguities in the phraseology of Messrs. Barker and Stout, and referring his hearers to Mitchell's *Structure and Growth of the Mind* for further information. On the merits of the controversy it seems to me that Prof. Stout is clearly right and Mr. Barker wrong about Stumpf's argument, which I am sure Mr. Barker misunderstood. But I think that in this matter it is important to draw a distinction between what I may call 'characteristics' and genuine elements. It is obviously true that you can be aware of a musical note at times when you are not aware that it is analysable into pitch, quality, and intensity; but these are characteristics, not parts, and it is certainly less clear that you can be said to have been aware of genuine *parts* of a whole when you did not distinguish them Still Prof. Stout

brings forward strong arguments even for the latter possibility, though they do not seems to me conclusive. For instance, the fact that a plot of grass looks different from a piece of green wood though you do not distinguish the separate blades does not surely *prove* that you really perceive the separate blades. Would the facts not be equally explained by saying that we had learnt by experience that visual objects of a certain quality were always connected with physical things which under more favourable circumstances cause the perception of visual objects in which parts are actually perceived? Then such appearances would be connected by association with a judgment that they represented wholes with distinct parts, whilst others (like that due to the green piece of wood) would not. And in general I do not see that the fact that when a sensation is attended to it is not felt to be something quite new is a proof that it was actually present before. It is clear that you cannot strictly *perceive* the newness or oldness of a sensation, but must judge it. This judgment may be based on an actual comparison, but it clearly is not usually, and, least of all, in the cases with which Prof. Stout deals here. Here it seems to me to be rather based on a felt quality of the present perception, and this felt quality certainly gives no proof that the judgment which accompanies it is true.

A word of praise is due to Miss Costelloe's article, which is one of the best expositions of Bergson that I have seen. She is greatly helped by knowing much more about the mathematical views of the *continuum* which Bergson attacks than that author himself or most of his commentators. Interpenetration, she says, means that none of the parts of a whole would be the same if they were parts of any other whole. This however would not prove, as Bergson thinks, that the parts of interpenetrating wholes cannot be classified, unless all resemblance be reduced to identity in difference. Whilst I agree with Miss Costelloe that there is a relation of resemblance as distinct from identity in difference, I think she overlooks a distinction, which, if recognised, would enable her to grant the possibility of classification for the parts of interpenetrating wholes even on the identity-in-difference theory. She takes the identity as that of an element whilst most people take it as that of a quality. I see no reason whatever why the parts of interpenetrating wholes should not be instances of many common universals. Miss Costelloe's objection to the mathematical theory of the *continuum* is not that it is inconsistent, nor that it is possible to state in conceptual terms any other account of what you mean by a *continuum*, but simply that you can see that it does not genuinely analyse the *continua* of which you are directly aware. In one sense I agree; the mathematical account of motion no more describes the object of the *perception* of motion than does the physical theory of light describe what you perceive when you see a colour. But, on the other hand, it seems to me that the mathematical and physical theories tell us about much more important facts in reality than perceived motion and colour. The latter are only of importance as indications of the presence of what the theories do describe accurately.

I have no space to criticise the remaining articles, many of which are of interest. I can only regretfully notice that Mr. Carlile, like so many other philosophers from Lotze downwards, has been led astray about non-Euclidean geometry by Helmholtz's most unfortunately-worded article.

C. D. Broad.

The Meaning of God in Human Experience: A Philosophic Study of Religion. By WILLIAM ERNEST HOCKING, Ph.D. New Haven: Yale University Press. London: Henry Frowde, 1912. Pp. xxxiv, 586.

The author of this monograph does not attempt to develop a conception of God by purely speculative thinking. As the title of the book indicates, it is a study of the working of the religious consciousness, and seeks to show the significance of God in the experience of mankind. In the Preface the author explains at some length his attitude to current types of philosophical theory. In what he terms "Classical Idealism" he discerns a weakness: it does not do the work of religious truth, and it offers us an idea of God which is lacking in spiritual power. The latter criticism seems more relevant than the former. As regards Pragmatism Dr. Hocking is critical, though not unsympathetic. The proposition "whatever works is true" is neither valid nor useful as a test. On the other hand, the proposition that "what does not work is not true" is both valid and important. This negative pragmatism, we are told, is of great value in the field of religion. But the writer rejects the theory that man makes truth, and quite rightly points out that an ultimate deference to what is given is necessary to the religious mind. Dr. Hocking's belief is, that the defects of Idealism and Pragmatism are made good by Mysticism, regarded as the practice of union with God and the theory of that practice.

The book then is a study of the working of religion in order to exhibit its inner meaning. Following out his plan the author, after a preliminary statement, goes on to discuss the part played by ideas and feelings in the religious consciousness. Parts III. and IV. deal with "The Need of God," and "How Men Know God". The concluding parts (V. and VI.) treat of "Mysticism" and the "Fruits of Religion".

The present reviewer must confess that he has found it very difficult to judge Dr. Hocking's book fairly. With many of the positions taken up it is possible to agree cordially, and his remarks often reveal insight and are suggestive. But Dr. Hocking sometimes does not draw a sufficiently clear line between a theory he is discussing and his own theory; and one could often wish his way of putting things was more natural and simple. As an illustration of the latter fault take his mode of stating the truth that religion is anti-individualistic. "Religion holds self-sufficiency in derision; religion is the comprehensive irony of the world toward all Owns. In opening every Art towards itself, it opens each toward every other: through No-art all Arts become one, and one life courses through all of them" (p. 24). Sentences like these are apt to irritate a reader who likes a truth plainly stated.

Religion, says Dr. Hocking, can be best studied in its effects: and the principle is sound, provided you remember that the effects do not take you to the heart of the inner experience from which they issue. There are difficulties, it is admitted, in translating the experience into valid ideas, and this has given strength to the claim that religion may be adequately based on feeling. But an analysis of the relation of feeling to idea does not give support to this view; and it is found to be necessary that religion should express itself in terms of thought. For if ideas work through feelings, feelings in turn are guided by ideas. The writer claims a certain independence for ideas, however; and this leads him to reject any attempt to interpret religion purely through the feelings or the will.

The portions of the volume which deal more directly with the conception of God leave something to be desired in the way of clearness and cogency. Hocking does not accept the idea of God as the all-inclusive whole, and he says the monism of the world is only such as to give

meaning to pluralism. One could wish, however, for a clearer explanation of the relation of the one to the other. The need of unity in the world is emphasised; and it is said we could not live without the Absolute, and God must be the Absolute. But most readers would like a more explicit statement of what is meant by the Absolute than is vouchsafed to them in these pages. On the whole subject of the place and meaning of God in experience we find Dr. Hocking's thought rather elusive, and we are not sure how far we have understood him. God, it seems, is necessarily implied in experience. In experience we are always dealing with a reality beyond ourselves. Yet the object of our knowing is common to all other knowing minds, and it can only be thus common because it is known by an Other Mind. God is the Other Mind which, in creating Nature, is also creating me. He is immediately and permanently known, and it is through the knowledge of God that I am able to know other men. The author devotes a number of pages to the examination of Natural Realism and our knowledge of Independent Reality. We are quite at one with him when he remarks that "an allegation of meaning does not swallow the object into the subject". But, it may be through some defect of insight on our part, after honestly reading what he has to say, in the end we are by no means certain what degree of reality he attributes to the external world, and how he conceives it to be related to God. We may add, that in the treatment of the problem of valuation the function of the subject in conferring values on objects appears to be exaggerated. For important as that office is, it remains true that the whole wealth of values cannot be evolved from the subject; it must partly depend on the intrinsic character of objects themselves.

Dr. Hocking writes at length on Mysticism, to which he attaches a very broad meaning. Here he is dealing with a congenial theme, and the reader will often find what he has to say instructive, as, for example, in his remarks on the principle of Alternation. In concluding this somewhat inadequate notice we think it well to say, that a reader in fuller sympathy with Dr. Hocking's literary manner and style of thinking would probably write more appreciatively of his book.

G. Galloway.

The Education of Self (L'Education de Soi-même). By Dr. Paul Dubois. Authorised Translation, by Edward G. Richards. New York and London: Funk & Wagnalls Company, 1911. Pp. 349.

This is a new translation from the latest French edition and supersedes a former translation of the same work which was published in 1909 under the title *Self-Control and How to Secure It*. It seems to be an accurate translation though full of echoes of French idiom. The spelling is American.

The aim of the book is to help moral weaklings, such as those whom the author meets in his neuropathological clinic, to turn over a new leaf. It consists of eighteen essays bearing such titles as "Humility," "Courage," and "Sincerity," and is so far reminiscent of the works of Dr. Samuel Smiles, against which many an Englishman has a doubtless unjustifiable grudge dating from the reluctant acceptance of those volumes as a birthday present at about the age of fifteen. But on dipping into this book the reader is surprised to find that what is urged upon him as an aid to moral improvement is the idea of determinism. This is so curious that many will be tempted to read to the end who might otherwise have laid the volume down. The argument is somewhat as follows:—

By "moral determinism" is meant that we are each of us exactly what heredity and environment have made us. We therefore cannot be blamed in any way for any of our thoughts or actions, nor can we be praised. We cannot praise ourselves, and thus we become humble, we cannot blame others, and so we become tolerant and indulgent. To those who have sinned the author further offers this doctrine as an antidote to remorse, while he assures them that if in the future they keep clearly in mind the evil results of continuing their bad habits, this change in the forces acting on them, produced by his advice, will inevitably make them act in a way different from and better than their past deeds for which he is bound to give plenary indulgence.

The pragmatic test of this has doubtless been applied by Dr. Dubois, whose experience with neurasthenic and neurotic patients is the foundation upon which his book stands: but we imagine that he would be among the first to agree that racial differences might account for this appeal to determinism appearing much less cogent, as we think, to English readers. There is, however, much to be said for it, as a contrast with some of the hortatory ethics of William James may make clear. James's insistence on the power of habits based on transitory instincts is in many ways much the same thing as Dr. Dubois' moral determinism, but the application is curiously different. In his *Talks on Psychology* the American philosopher says: "The drunken Rip Van Winkle, in Jefferson's play, excuses himself for every fresh dereliction by saying, *I won't count this time!* Well, he may not count it, and a kind Heaven may not count it; but it is being counted none the less. Down among his nerve-cells and fibres the molecules are counting it, registering and storing it up to be used against him when the next temptation comes. Nothing we ever do is, in strict scientific literalness, wiped out." Now compare from *L'Education de Soi-même:* "Each relapse belongs to the past periods of life; of the future neither you nor I know anything yet. The faults of our life are like railway accidents: a train is derailed; that belongs to the past, and it is no reason that the next one should also run off the rails. Is it not probable that the pointsman found to be at fault will give more careful attention to his duty in the future?" (p. 207).

James is good for those still virtuous, for his warning may prevent the formation of bad habits. But his words would be rather discouraging, would they not, to poor old Rip if he wanted to reform? To such the words of Dr. Dubois might bring help, though they are unfortunately less true: for the pointsman will not necessarily be more careful if he enjoys accidents and is only going to be punished years hence.

Dr. Dubois mentions suggestion somewhere. The idea of moral determinism which he urges has this disadvantage, that it suggests carrying determinism to a logical conclusion; and then, since this leads either to fatalism or to paradox, the reader is not helped by the book but only bewildered. For here, of course, determinism is not carried to the bitter end, as may be seen from many phrases, such as the insistence on *psychasthenia* instead of *neurasthenia;* or, "Determinism is not a predestination. The future is still unknown" (p. 204); or again, "There are no born criminals, predestined to crime from the beginning" (p. 70). The fact is that determinism is, like the law of conservation of energy, apparently true for the whole universe, but certainly not for any part of it. And just as Dr. Dubois' book may come like an energy-bringing comet into the system of an individual life, and turn habits, like planets, from their accustomed paths, so what in ordinary parlance we call blame and praise may change a life. The reason we blame the young scapegrace but not the weakly plant (*cf.* p. 110) is that we know

our blame may have an effect in the former case but not in the latter: but this book may encourage some to answer:—

> They sneer at me for leaning all awry;
> What! did the Hand then of the Potter shake?

GODFREY H. THOMSON.

Minds in Distress: A Psychological Study of the Masculine and Feminine Mind in Health and in Disorder. By A. E. BRIDGER, B.A., B.Sc., M.D., F.R.S. Edin.; Fellow of the Royal College of Physician of Edinburgh; Fellow of the Royal Society of Medicine of London. London: Methuen & Co., Ltd. Pp. 181.

This small book, which is obviously written out of great wealth of experience, is rather a book of practical direction than of theoretical discussion; but it starts from a somewhat novel standpoint, namely, a reasoned distinction between the "masculine" and 'feminine" types of mind. The mind, according to its duties, may be divided into the conscious, the sub-conscious and the reflex (automatic or organic). In normal persons these three constitute the ego; but they are not to be thought of as separate except for convenience of speech. "There are no fixed and real boundaries, and directly circumstances become unusual the order of this relationship is overthrown and they invade each other's department and provide us with many extraordinary phenomena" (p. 5). There is a general balance of the three constituents, one arm of the balance being "Common Sense" or "common mind" (p. 7). "This consists of our general store of knowledge, a register of our conclusions to date, and though it is being perpetually modified in composition by such new ideas as we accept and absorb, yet is the more stable arm of the balance" (p. 7). The other arm consists of the new impressions flooded into the mind through the whole mechanism of experience. The content of "common mind" and its balance depend upon the individual's relation to current social opinion. When this relationship is in any way affected, the egoistic elements in the constitution tend to predominate: the wholesome check of criticism is removed and there is generated the "hermit mind," which tends to become morbidly subjective. The patient becomes "the victim of self-suggestion, or disorder of the attention, and can only be cured, as we shall see, by one who will completely unravel the tangle and at the same time place and keep the sufferer in the active moving world of normal minds" (p. 12). Mental comfort depends on the preservation of the mental balance between "common sense" (the formed individual conscious mind), and all novel experience that is presented to it. Minds at once fall into "distress" when this balance is broken. In the masculine type of mind, the reasoning, practical faculties predominate. Hence, when, from any cause, the relation of a man to the ordinary social mind is interrupted, he tends to become neurasthenic. The feminine type of mind is predominantly instinctive and emotional. Hence when the balance is broken, the patient tends to become hysterical. This is the fundamental distinction of the book. Chapters are devoted to the characterisation of the masculine and the feminine types. The author is careful not to say "male" and "female"; because, in his view, the masculine type is not confined to the male sex nor the feminine type to the female. His last chapter gives a rough quantitive formula to indicate what proportions are maintained in each type between the ideas relating to self, the ideas relating to others, sensations, instincts, impulses and intuitions, reflex, muscular and

secretory impulsions. The quantities are, of course, only rough guesses to distinguish the types of the normal from the abnormal. The distinction between the masculine and feminine type is certainly vague but some objective characterisation is possible. On the basis of the distinction the author gives many valuable practical hints for the understanding and treatment both of neurasthenia and of hysteria; but these hints are medical rather than psychological. The book is intended to provide rather an orientation for the student of neurasthenia and hysteria than a clinical text-book. It is written with vivacity; it keeps close to practice and, though many points are too dogmatically put to be uncritically accepted, the small book, as a whole, forms a sane and stimulating introduction to the handling of "minds in distress".

The book is merely a sketch; but it is a pity that the writer did not find room for some account or criticism of the Freud psychology, which has at least had sufficient potency to create a school, and to compel controversy and trial wherever neurasthenia and hysteria and melancholia have been seriously studied.

W. Leslie Mackenzie.

Social Powers. Three Popular Lectures on the Environment, the Press and the Pulpit. By Sir Henry Jones, LL.D., Litt.D., F.B.A. Glasgow: James Maclehose & Sons, 1913. Pp. 114. 2s. 6d. net.

These lectures were delivered to different popular audiences, but are governed by one purpose: "to help plain men to realise the significance of the invisible world of moral and social and religious facts by which they live; and to induce a fuller use of earnest thought among them". The book, which is marked by the author's usual felicity of thought and diction, is therefore intended primarily not for students of philosophy but for the increasing number of people who are becoming interested in, and it may be, alarmed by, the moral and social problems of the day. No reader can fail to welcome Sir Henry Jones's enterprise, an adventure prompted by no spirit of moral knight-errantry, but constrained by social circumstances and social needs. Sir Henry Jones has a centripetal interest in the grave and ultimate issues of life, and his social earnestness which has stimulated succeeding generations of students will here reach and influence a wider circle.

The first lecture emphasises the significance of the social environment. The importance of the physical environment we now understand. But we do not yet realise the presence and power of the other environment, all-pervading, intangible, invisible and inaudible. This environment makes us and we make it. The last lecture puts forward an eloquent plea for the recognition of the claims of reason in religion. Unreasoning authority is everywhere losing its power. Will dogmatism in theology survive despotism in politics? Religion as much as morals is a matter of rational judgment. Following natural science, religion ought to repudiate feeling as a criterion of truth. There is only one kind of proof, *i.e.*, organic systematisation, and the facts of religion are as capable of proof as any other facts.

The philosophical groundwork of the addresses amounts to a total repudiation of the *either* . . . *or* hypothesis. We have no right to speak of *either* the individual *or* the State, *either* the man *or* his environment, *either* reason *or* faith, *either* the religious *or* the secular. Strictly philosophical principles, though always implied, are seldom explicitly mentioned. But the author in passing makes clear his position on some of the vexed problems of philosophy. With these statements many of the readers of

the book will disagree, but no fruitful discussion of them can take place till they have been developed and demonstrated as a coherent body of doctrine. It is to be hoped that Sir Henry Jones will see his way to undertake that task.

Instances of oversight in the proof-reading occur on pages 39 and 81. And a quite trivial point, probably due to a printer's error, stimulates curiosity. Why is Aspasia adorned with inverted commas? (p. 53). Has any one had the temerity to suggest that 'Aspasia,' in company with 'Homer' and 'Shakespere,' should be banished to the limbo of exploded superstitions?

G. A. Johnston.

Hypnotism and Disease: a Plea for Rational Psycho-therapy. By Hugh Crichton Millar, M.A., M.D., with an introduction by Charles Lloyd Tuckey, M.D. London: T. Fisher Unwin, 1912. Pp. 252.

This volume, admirably printed, is intended to present "the main features of Psycho-therapy in a form suitable for the intelligent reader of either sex". The author has produced a volume well fitted to fulfil his purpose. The exposition is compact and lucid. Dr. Millar aims less at originalty than at explanation to the non-technical, whether medical or not. He includes chapters on the interaction of mind and body, history of hypnotism, phenomena of hypnosis, the psychological aspect, methods, other methods of psycho-therapy (including psycpo-analysis), the psycho-neuroses, treatment or organic diseases, diseases of lost inhibition. There is an index and a bibliography to guide further study. Many illustrative cases are deteiled in the text. Altogether the book is a good introduction to the study of the neuroses and their psycho-therapy.

W. L. M.

An Introduction to Metaphysics. By Henri Bergson, Authorised translation by T. E. Hulme. Macmillan & Co. Pp. vi, 79. 2s. net.

M. Bergson's classical essay, as most people interested in his philosophy know, is almost impossible to obtain in its original tongue. Consequently an unusually hearty welcome is due to this translation. "Almost every one of the French philosophers in his turn composed his *Discours de la Méthode*, says M. Levy-Brühl, and such is the nature of this essay, although it did not appear until after the publication of *Les Données Immédiates* and *Matière et Mémoire*. Its importance largely consists in its exposition of "intuition". Expounders and critics of Bergson alike have made large use of this essay, and those who read it in full for the first time are likely to find it, like Hamlet, "full of quotations". Mr. Hulme has done a useful piece of work, and done it well. If he had added one or two other articles also difficult to obtain, he would have done still better.

Arthur Robinson.

Modern Problems in Psychiatry. By Ernesto Lugaro, Professor Extraordinary of Neuropathology and Psychiatry in the University of Modena. Translated by David Orr, M.D., and R. G. Rows, M.D., with a Foreward by Sir T. S. Clouston, M.D., LL.D. University of Manchester Publications, No. xlvii. Pp. vii, 305.

The first edition of this book was noticed in Mind, N.S., No. 75. As in this, the second issue, the translators "have not thought it necessary to make any radical alterations in the text," and have confined themselves to "small changes," including errors, it is unnecessary to say more than that the book entirely deserves the success implied in a second edition.

W. L. M.

Aristote. Traductions et Études. Introduction à la Physique Aristotélicienne. Par Auguste Mansion. Louvain and Paris, 1913. Pp. ix, 209.

The first volume of this series of translations and commentaries issuing from the University of Louvain has been already noticed favourably in Mind. M. Mansion's Introduction to the *Physics* forms a worthy sequel to M. Colle's rendering of *Metaphysics A*. Students of Aristotle will be well advised to watch for the promised complete translations of both works. M. Mansion's Introduction deals with the most general characteristics of Aristotle's *Physics* (the view of Nature involved, the distinction between matter and form, the notion of "first matter," the Peripatetic "Hylozoism," the meaning of causality, necessity, chance) in a masterly way only possible to a writer who is intimately at home not only in the text of his author but in all the most important exegetical work, ancient, mediæval, and modern. In our own day there is far too common a tendency among students of both Plato and Aristotle to underrate the worth of exegesis older than the nineteenth century and originating outside the German Universities. It is to be hoped that the devotion of the philosophical school of Louvain to the Angelic Doctor will do much to dissipate this prejudice, so far as Aristotelian study is concerned. M. Mansion is, I presume, a Thomist in general philosophical position; at any rate he writes like a Thomist, but like one who has not failed to profit by modern exposition of Aristotle of every kind from Schwegler to Gomperz. Hence his possession of a living tradition of centuries of Christianised Peripateticism is a pure gain to himself and his readers. If I must note any respect in which his admirable work can be called at all deficient, I should say that he has learned to see almost too much with Aristotelian eyes. Thus he seems to share Aristotle's inability to appreciate the real merits of the Eleatics, and he certainly exhibits something of Aristotle's bias against exact physical science when he charges Plato with having all but wholly neglected the study of *περὶ φύσεως ἱστορία*. This is more than a little hard on the writer of the *Timæus*, the first splendid suggestion of the possibilities of mathematical Physics. Even Aristotle takes Plato's Physics seriously enough to argue against them none too successfully.

Incidentally it may be permissible for the writer of this note to mention a passage in which he has himself fallen under M. Mansion's censure for the statement that Aristotle habitually thought of the integers as *benannte Zahlen* "numbers of" collections of sensible things. M. Mansion calls this (p. 79) an exaggeration, and says that it is not a legitimate deduction from the principle that numbers are only real as accidents of body. "Aristotle admitted the absolute worth" (of numbers) "from the purely objective and logical point of view, though he insisted on protesting against the crass realism which projects the ideal *tel quel* into reality."

I observe, however, that on the preceding page (p. 78) M. Mansion falls into an error, frequently committed by Aristotle, of speaking of "equal" but different numbers. Properly speaking, there are no such things. Every integer B which is not *identical* with an integer A is unequal to A, or, if you deny this, you will be, at any rate, driven to invent entities of which this principle holds, and to say that the class of these new entities, and not the class of "integers," when so defined as to permit of equal but non-identical members, is the object studied by elementary Arithmetic.

A. E. Taylor.

A. Cournot, Métaphysicien de la Connaissance. Par E. P. Bottinelli. Published by Hachette. Pp. xii, 286.

This work is an introduction to Cournot's philosophical views as developed in the *Essai* and the *Traité*. Cournot seems to me a very lucid writer, and an introduction is hardly necessary except to make him more widely known. M. Bottinelli gives a clear and full account of Cournot's more characteristic doctrines, but he refrains almost entirely from criticising them. Where he does criticise his conclusion is generally that it is Cournot's mode of expression rather than his thought that needs alteration.

An exception, however, must be made in connexion with Cournot's theory of objective chance, where M. Bottinelli holds that there is a genuine error. Cournot's position is that there is objective chance in the sense of mutual independence of laws even in the sphere of mathematics, and that there is objective chance in the sense of spontaneous and unpredictable beginnings in the spheres of history and life. Our author holds (*a*) that Cournot sometimes confused the two meanings and was at any rate liable to make too many concessions to a mechanical view which he actually rejected ; and (*b*) that chance has no real meaning as applied to pure mathematics, since it depends essentially on unfulfilled possibilities, and there are none in this region.

In conclusion, I think that M. Bottinelli gives a more Bergsonian turn than is justifiable to some of Cournot's theories by his mode of expression ; but it must be confessed that some passages that he quotes tend to support his interpretation.

The book contains a very full bibliography of works by and about Cournot.

C. D. Broad.

Die Logik als Aufgabe. Eine Studie über die Beziehung zwischen Phänomenologie und Logik. Zugleich eine Einleitung in die Ordnungslehre. Dr. Hans Driesch. Tubingen : J. C. B. Mohr, 1913. Pp. vi, 100. 2m. 40.

This volume is complementary to one published in 1912, entitled Ordnungslehre, in which Logic was regarded as based on the concept of order. In the fundamental truth of philosophy, "I think something," that which I think is to be regarded as essentially ordered ; and in so far as I ask what makes my experience ordered, I am engaged in a logical investigation. But the question arises, How am I to know that something makes my experience an ordered one ? Dogmatism on this question can only be avoided by starting from the standpoint of Phenomenology, which gives, as it were, the maximum of information with a minimum of presupposition.

If, then, starting from this standpoint, we simply examine our experience, we find certain aspects broadly predominant. One fundamental characteristic is, that into everything which is thought enter certain "signs" or "meanings," among which is that of validity with respect to order. Logic simply accepts these signs, and clarifies them. The justification of this view is contained in the present volume. A complete account of the concept of order involves an investigation into the nature of thought. The problem then is, What do we experience when we have the experience, "I think something"?

The discussion of the nature of mental activity here given may, from another point of view, be regarded as supplementary to the biological theories with which Prof. Driesch made English readers familiar in his Gifford Lectures in 1907-8. For mental activity is in principle the same as "life," and in throwing light on the one we throw light on the other.

In order to discover what is contained in the experience "I think something," recourse is had to the work of those psychologists who, mainly under the influence of Külpe, have paid special attention to the psychology of thinking. The point of view of these investigators has been, that in order to get correct results, you must set your subject thinking. The subject has been given a problem (Aufgabe) to solve (*e g.* Is the question of immortality an ethical one?) and asked to state the results of his introspection during the process. When the questions are rightly set, and properly arranged in groups, the various aspects of the thinking process can be disentangled. The influence of the "Aufgabe" is thus fully recognised.

The first thing to be noticed about this work is, that the "act of thinking" (nachdenken) is not observed at all. What the investigators find is, that we have thoughts, and what they describe consists entirely of thoughts. The "activity" which is supposed to produce or guide the course of these thoughts is at any rate not presented as an object. The thoughts seem to come, not as a continuous set leading to the desired result, but rather in a set of discontinuous leaps. The problem to be solved operates rather as a "determining tendency" than as something before the mind. Consequently, to speak of an activity of thought at all, as something which operates continuously, is to complete the observed facts by means of theory. Hence we must first confine our attention to the facts as observed, and see how much they will give us.

What we get, then, is a classification of thoughts. After discussing various classifications, Driesch proceeds to examine into what ultimate elements the experience "I have a thought" can be analysed, and to show that his analysis is in substantial agreement with the results obtained by experimental psychology. He discusses fully only one of the elements—that of meaning. We may indicate the result as regards meaning somewhat as follows. Every thought presents certain characteristics or signs which can be classified and thus reduced to certain ultimate signs. It is commonplace to say that we never "think of" a number, or a chair, without some purpose, *i.e.* relation to some intellectual problem. In relation to this problem, every thought (*a*) is itself systematic, and is recognised as such. It is ordered, and brings order into the experience into which it enters. (Endgultigkeitszeichen mit Rucksicht auf Ordnung, or Ordnungszeichen.) Again, (*b*) it is more or less satisfactory, *i.e.* it can be accepted to a greater or less degree as bearing on the problem (Erledigungszeichen); (*c*) it has a certain temporal character (Zeitzeichen), and (*d*) it takes its place within a certain "sphere" or universe of discourse, and bears this mark (Erlebtheitskreis-zeichen). These marks make up the meaning which every thought possesses. For Phenomenology they are ultimate and independent. But in relation to

Logic they can be regarded as particular forms of "order". Every thought is thus predominantly a systematising or ordering agent.

Thus observation gives the result: To have a thought is to have an "ordering" in relation to a problem. To think is to work under the "determining tendency" of the problem of order. "Erleben = Denken = Sparsamordnenwollen" (p. 93, n. 2). "Denken heisst geradezu unter der Aufgabe *Ordnung* stehen" (p. 94). More explicitly, "Ich erlebe Gedanken" is the same as, "Ich erlebe Aufgabenlösungen mit Rucksicht auf die Aufgabe *Ordnung*" (p. 94).

This is true of all mental activity. Willing is only a special form of thinking as thus described; indeed, solving problems by means of ordering is the fundamental character of all life (which can be described *as if it were* an attempt to order).

Thus "order" is the fundamental concept for Logic which must be accepted as it stands. The problem of Logic is simply to discover the different kinds of order. Since each thought bears a sign of order (not self-evident in the sense of infallible, though it seems as if it must be accepted as such for the time being) it would seem as if Logic is simply to classify these signs. If we ask what order is, the reply will be, "It is that which every living being is set to do. It is the problem of problems. "It is the 'ultimate determining' tendency under which we all stand" (p. 90). The ordinary man throughout life needs and strives after order more than he strives after anything else, and in doing so he gains a Logic, which however is fragmentary, and self-contradictory. The logician will arrive at his Ordnungslehre in substantially the same way: he will clarify his experiences (all of which are "problem-solvings"), with special reference to the mark of order which every thought bears (p. 91). It is only by ordering that you can arrive at a Logic; and similarly every ordering (*i.e.* every act of a living being) can be described, from one point of view, as a step towards the construction of Logic. Progressively to solve the problems which life presents is progressively to realise an Ordnungslehre.

The recent work on the psychology of thinking, which bulks so largely in this book, is scattered through various periodicals, and stands in need of co-ordination, as each investigator tends to elaborate his own set of technical terms; and it is one of the merits of the present book that it endeavours to effect this co-ordination. The value is enhanced by the excellent remarks as to the dangers to be guarded against in psychological investigation, and by the discussion of the precise way in which Logic and Psychology can aid one another, when once both are based on their common ground, Phenomenology.

L. J. Russell.

Aristoteles Lehre vom Ursprung des Menschlichen Geistes. Von Franz Brentano. Leipzig: Veit & Co., 1911. Pp. viii, 165. Six marks.

This book is a second edition of the author's work, *Über den Creatianismus des Aristoteles* (1882), greatly augmented by a reply to Zeller's criticism of the earlier work (reprinted in Zeller's *Kleine Schriften*, vol. i.). The object of the book is to show that Aristotle believed, not, as Zeller holds, that each man's reason has existed from all eternity, but that it is created by God and implanted in the embryo at some moment of its development.

Two great merits may be freely conceded to Brentano. He has a very thorough knowledge of Aristotle's works, and he shows great acuteness and ingenuity in their elucidation. Time after time he is able to show that

Zeller has missed some more or less important distinction which should be drawn in interpreting the text. Where Brentano is somewhat lacking is in power of judgment. He is often in danger of not seeing the wood for the trees; Zeller's greater common sense has enabled him to see better than Brentano the significance of many passages which he has evidently studied with much less care.

Brentano deals first with certain passages which in Zeller's opinion teach or imply the pre-existence of reason. The first is the famous passage of the *De Anima*, 430 a 22-25. Zeller supposes Aristotle to be giving the reason why in this life we do not remember the previous life of reason; and if this be the meaning the passage is of course conclusive for his view. Brentano points out that this is not necessarily the right interpretation, and with this we agree. If that were the meaning, *ἀθάνατον* and *φθαρτός* would be irrelevant; *ἀγέννητον* and *γενητός* would be the appropriate words to use. Brentano's own explanation of the passage as referring simply to the fact that we do not *always* remember what we have once known is however less probable than the interpretation to which *χωρισθείς, ἀθάνατον, φθαρτός*, the parallel passage 408 b 27, and the opinion of Themistius and Philoponus alike point, that Aristotle's meaning is that memory ceases with the death of the body and the destruction of the passive reason. But really discussion of the meaning of *οὐ μημονεύομεν* is beside the point; for the words *τοῦτο μόνον ἀθάνατον καὶ ἀΐδιον* are fatal to Brentano's theory. Aristotle is chiefly dwelling on the fact that *νοῦς ποιητικός* does not *die*, but *ἀΐδιον* clearly goes beyond this and must refer to the past no less than to the future. Brentano's attempt to whittle away the meaning of *ἀΐδιον* is quite unsuccessful.

He passes next (we may omit the unimportant passage, *De An.* 410 b 14) to another famous passage, *De Gen. An.* 736 a 31-b 29, the passage ending with the words *λείπεται δὲ (ἢ δὴ) τὸν νοῦν μόνον θύραθεν ἐπεισιέναι καὶ θεῖον εἶναι μόνον*. He has a long and acute discussion of the passage, but all that he establishes as regards his main point is (what Zeller expressly admits) that it is not absolutely implied that reason *προυπάρχει*. The passage has several loose ends; it offers an elaborate classification of possibilities which is not properly followed up, and *προυπάρχειν* comes in one part of the classification and *θύραθεν ἐπεισιέναι* in another. But that in the end Aristotle regards these two as coextensive, though not identical, seems clear. The passage confirms, though it does not prove, Zeller's theory.

Brentano next tries to show that Aristotle expressly denies the pre-existence of reason. He relies here on a single passage, *Met.* 1070 a 21-26, where Aristotle says *τὰ μὲν οὖν κινοῦντα αἴτια ὡς προγεγενημένα ὄντα, τὰ δ' ὡς ὁ λόγος ἅμα*, but admits that some formal causes may outlast their effects, and gives the reasonable part of the soul as his instance. Brentano takes this to imply that it does *not* exist *before* its effect, *i.e.* the individual life, but Zeller seems clearly right in taking *αἴτια* as part of the predicate (it probably belongs to both subject and predicate), so that the point is that while efficient causation *implies* the existence of the cause before the effect, final causation does not. The pre-existence of reason then would not be denied, but only said not to be implied in its being the formal cause of life. It is noticeable, however, that while Aristotle here as well as in *De An.* 408 b 27, 430 a 23, refers expressly to the life of reason after death, he nowhere refers expressly to its life before birth. It may be simply that the one question interested him, and was likely to interest his hearers, more than the others, but one may conjecture that possibly he thought that reason retains after death a sort of individuality which it had not before birth, though an individuality unaccompanied by memory or emotion.

Brentano next tries to show that Aristotle definitely teaches that the reason is created at a certain stage of the fœtal development. His main evidence for this is the passage already referred to, λείπεται δὲ τὸν νοῦν μόνον θύραθεν ἐπεισιέναι καὶ θεῖον εἶναι μόνον. He argues that θεῖον here must mean 'derived from God,' but though this meaning would suit the argument excellently, the assignment of this rather special meaning to so vague a word as θεῖον must be somewhat speculative, and the occurrence of the comparative θειοτέρου a little later (736 b 31) suggests that the word refers to the nature rather than the origin of reason.

Brentano's attempt to make metaphysical capital out of the very general statement in *E. N.* 1162 a 6, is equally unsuccessful. And *De An.* 430 a 20, 431 a 1, suggest not so much the *creation* of the human reason by God as the temporary *manifestation* of the divine reason under limiting conditions which render it not always actual, the *kenosis*, as it were, of the divine reason.

The next part of Brentano's argument is an attempt to confirm his 'creationist' theory by showing that Aristotle believed the heavenly spheres and the spirits that move them to be also created by God, though not at a particular time like the human reason but from eternity. In point of fact Aristotle has left us almost entirely in the dark with regard to the relation of God to the spheres and their movers. It seems clear, however, that the notion of eternal creation is not to be found anywhere in Aristotle, and that the universe is for him unified not (to use a distinction which he introduces in another connexion) by being ἀφ' ἑνός but by being πρὸς ἕν, by aiming at God as its central object of desire. In particular the spheres in so far as they have ὕλη cannot have been thought of as created by God, for ὕλη is what making presupposes and what therefore cannot be made. Further, Brentano's attempt to show that the Aristotelian Deity, though directly thinking only of itself, thinks indirectly of the whole detail of the world's history as of something flowing from the Deity's own nature, and produces that history in the manner of an efficient cause, is plainly unsuccessful. If *Metaphysics* Λ tells us anything, it tells us that God's thought is a thinking on thought *and on nothing else*, and that God moves the world only ὡς ὀρεκτόν. These views are difficult enough to understand, but there is no escaping the fact that they are Aristotle's views.

The remaining two sections, in which Brentano argues that the doctrine he ascribes to Aristotle is more in accordance with the views of Plato on the one hand, of Theophrastus and Eudemus on the other, than the 'pre-existence' doctrine, are of subsidiary importance. Nor would it be worth while here to offer any account or criticism of the extremely interesting discussions of many important Aristotelian questions which are to be found in the later part of the book. If we are compelled to disagree with the author on the main question, we are left full of admiration of his learning and his acuteness.

W. D. Ross.

Das genetische Prinzip. Versuch einer Lebenslehre. Von August Ludowici. München: F. Bruckmann A.-G., 1913. Pp. 299.

The study of every living thing reveals two ever-present sets of factors. One is the environmental (*die ökologische Faktoren*), the set of outer conditions in and through which it lives, the other is the "genetic," the stable characters of species or type which it inherits and passes on to its offspring. The two sets may seem in a sense opposed or antithetical, inner standing over against outer factors, but they are in truth the *polar*

elements of the unity of life, distinguishable in our analysis but forming in their relation to one another an indissoluble whole. Life is a unity of stable (identifiable with genetic) and variable (identifiable with environmental) factors. If we only understand that these are polar factors within *every* whole of experience, that inner and outer, continuum and discontinuum are meaningless apart, outside of each organic unity in which they are revealed, we shall have solved many pressing problems both of the biologist and of the philosopher. The method of solution thus pointed out may be called "the genetic principle".

Pursuing this principle the author first analyses the organic individual. Here his starting-point is the doctrine of the stability of the germ-plasm, with its corollary that all variation (Veränderung) is possible only through the working of environmental factors, the genetic factors remaining constant and alone heritable. Unlike the protagonists of this doctrine the author bases it primarily on the Mendelian law. That law reveals the genetic elements (die Gen) as remaining true and changeless through the generations. They mingle and thus form variations, but they are not thereby modified themselves, for in another generation they reappear in their original distinctness. The heritable factors remain pure, and on this side every individual is a revelation of his type. But he is at the same time an individual, for he is a unity of the constant and the variable, he is always a unique resultant of genetic and environmental factors.

The whole of the succeeding discussion is based upon this biological analysis. We may therefore pause to notice briefly certain difficulties involved in it. In the first place the Mendelian law has in fact been found applicable only to a limited number of very specific characters, and it seems unwarrantable to give it a universal extension. The term "Mendelian" applies not to a universal law of heredity but to a unique and limited series of phenomena within the sphere of heredity. (It is significant how little the main body of Weismannists, whose doctrine comes here very close to that of our author, rely upon it.) Again, it is doubtful if the author's insistence on the unity of the individual really solves, as he supposes, the problem as between Lamarckians, "who have their standpoint on the side of the environmental factors," and the Weismannists, "who stand on the side of the genetic factors". Both parties might I fancy well accept the principle in question and still remain opposed. In his last chapter the author discusses explicitly the old issue of the "inheritance of acquired characters," and finds that the problem is in that form insoluble because wrongly put. One could wish that he had definitely correlated the later discussion with the earlier.

After the analysis of "the individual" the author proceeds to analyse "reason" (*Vernunft*)—or rather to show that the distinctions he has just been drawing in the organic sphere are applicable to the Kantian analysis. He works out a close and interesting analogy between the factors which analysis discovers in the individual as organic and those of the individual as thinking being. In both the same polar antithesis is revealed. *Sinnlichkeit* and *Verstand* are polar functions in the unity of thought, the former on the side of the environmental and variable, the latter on the side of the genetic and stable. *Eindruck* and *Begriff* are similarly related, and correspond respectively to variety and type within the organic. Finally *Erscheinung* and *Idee* are the poles of experience even as birth and death are the poles of life.

It may already be noticed that the author tends to strain after analogy. This tendency unfortunately becomes more pronounced with each successive chapter, and finally leads him into absurdities. Thus in the analysis of the "world" (Welt) which succeeds the analysis of

reason we find atom and electron, quantity and quality, future and past related as polar opposites on the side of the "genetic" or stable and on that of the environmental or variable respectively. Why, for instance, the past should belong to the side of the variable and the future to that of the stable passes understanding. And this is but one instance of a constant vain striving after uniformity which renders much of the latter part of this work valueless, and very nearly leads one to forget the genuine insight and keenness of analysis which characterises the earlier part. The author seeks to build up a formally symmetrical system of the universe which in the end looks more like a child's play-house than the scheme of things entire.

Yet although as an endeavour after a complete *Lebenslehre* the work breaks down, it makes some valuable contributions to its object. One might point out especially the important passages in which the author shows the falsity of certain antitheses which are apt to dominate the thought of both biologist and philosopher. Birth and death, he points out, are the termini of life just as north and south are the poles of the earth. Now we would never dream of drawing an antithesis between, say, north pole and earth, and it is equally false to regard life and death as antithetical. The true antithesis is birth and death. "The true opposite of life is not-life. They both belong to superindividual nature; but death and birth are always only personal." So with being and becoming. Being corresponds to life, becoming corresponds to birth, and its true opposite is thus not being, but passing (*Vergehen*). "Just as life makes possible the synthesis of birth and death, so must being reconcile becoming and passing." So again with freedom and necessity in the moral sphere. There is no antinomy here. Necessity is the whole, it is nothing else than Nature herself. The opposite of freedom is compulsion, and these two again are as poles of the moral life, compulsion on the side of the variable and environmental, freedom on the side of the stable and genetic.

If it is permissible to regard this work as an early or first work, it is full of promise. The style is unusually pleasant and free, and the author's thought is wide enough to find philosophical inspiration both in contemporary science and in the classical poetry of Germany.

R. M. MacIver.

Menschen- und Weltwerden. Ein Beitrag zur Geschichte der Mikrokosmusidee. Konrat Ziegler. Leipzig and Berlin, 1913. Pp. 45. (Reprinted from *Neue Jahrbücher für das klassische Altertum-Geschichte und Deutsche Literatur*, xxxi, pp. 529-573).

A useful study of the famous myth put into the mouth of Aristophanes in the *Symposium*. The author shows by careful comparison the close kinship of the speech of "Aristophanes" with the myth told by the "stranger from Elea" in the *Politicus*, and demonstrates that both have a common origin in a form of the Orphic cosmogony not precisely corresponding with any of those which have been preserved for us outside Plato. Apparently he is unacquainted with Adam's edition of the *Republic* and separate pamphlet on the *Nuptial Number* in which many of his results have been largely anticipated. (The only work in English to which reference is made is Bury's edition of the *Symposium*.) It is further shown that the version of the Orphic cosmogony which Plato has in view in both dialogues has been largely influenced by the scientific theories of Empedocles, himself, of course, to a great extent an Orphic. I think the case is fairly made out for the writer's view that Plato has

pretty certainly in view in the *Symposium* an actual work expounding an Orphic-Empedoclean cosmogony which he is parodying. The likelihood of the existence of such a work is made all the greater by certain considerations which Dr. Ziegler does not mention. The cosmology and physiology of the *Timæus*, though ascribed to a Pythagorean contemporary of Socrates, is markedly Empedoclean in a host of points. This, of itself, would suggest the existence of a school of cosmologizing physiologists and medical men who attempted to fuse the Pythagorean principles with the Empedoclean doctrine of the "elements," and we have, since the publication of the fragments of the *Iatrica* of Menon, positive proof that there was such a school, and that Philolaus, whose significance for the thought of Socrates is indicated in the *Phædo* and *Gorgias*, belonged to it. Now it is just from some such quarter that a fusion of Empedocles with an older and cruder version of Orphic ideas is likely to have come. (I do not mean that Philolaus himself is at all likely to be the source of the cosmogony parodied by Plato. From the *Phædo* we should rather infer that he and his scholars had dropped the cruder and older "Orphic" features of Pythagoreanism, which, in fact, are in that dialogue rather ascribed to Socrates.) I do not think the suggestion that Protagoras and his ἀντιλογικοὶ λόγοι have anything to do with the matter a very happy one, since one can account for the tale of Aristoxenus about the dependence of the *Republic* on Protagoras without the pure hypothesis that it arose from a resemblance of the proposals of the *Republic* about women with similar paradoxes of Protagoras. Though I admit that Dr. Ziegler, who rightly dwells on the connexion of the Epimetheus-Pandora story with the myth of men who were γηγενεῖς might make something of the fact that it is precisely this story on which Protagoras dwells in the dialogue called after him. (This might also have been brought into connexion with Plato's own myth of γηγενεῖς in the *Republic*. One might even suggest that the tale of Aristoxenus had no better foundation than the coincidence between the story told by Protagoras in Plato, and conceivably, therefore, in his own epideixeis, with Plato's humorous proposals about the use to be made of the fiction of the γηγενεῖς in the *Republic*. However that may be—and our extant specimens of ἀντιλογικοὶ λόγοι would hardly lead us to look for such a myth in discourses of this kind—I think a good case has been made out for the view that the discourse of "Aristophanes" is based on a lost work presenting an Orphic cosmogony strongly influenced by Empedocles. And further I am personally ready to accept the view that the notion of γηγενεῖς as bi-sexual stands in close connexion with the old Hesiodic doctrine that Heaven and Earth—the original parents of us all—were at first one until they were separated by violence. That the supposed severance of the bi-sexual γηγενεῖς is meant to represent Man the microcosm as having experienced a fate exactly like that of the great Cosmos seems likely enough. But I do not find it so easy to take the final step to which Dr. Ziegler invites us. He dwells rightly enough on points of resemblance between the Hesiodic and Orphic myths and the creation stories of *Genesis*, which he regards as remnants of the Babylonian creation-myth related by Berossus. Hence he concludes that the ultimate origin alike of the Genesis narratives and of the Orphic cosmogonies is to be sought in Babylon. I think the influence of the *Panbabylonismus* fashionable in Germany leads him to underrate the weakness of some of the links in his reasoning. To begin with, it is hardly legitimate to treat the narratives of *Genesis* i. and *Genesis* ii. as parts of one and the same story. Some of Dr. Ziegler's most striking points are got from the story of *Genesis* ii., but it is precisely this narrative which it is hardest to connect with the Babylonian myth. The

indications are rather for a Canaanite origin. (See Gunkel's treatment of the chapter in his Commentary.) On the other hand, it is essential to the argument that the "first man" should be bi-sexual, and this point can hardly be got out of the "Jahvist" account of the creation of Eve. Dr. Ziegler follows certain mediæval Jewish writers in regarding the "man" of *Genesis* i. (the so-called "Priestly" narrative), as bi-sexual, but, as I have said, it is rash to extend results derived from analysis of the "P" story to the version of "J". And the underlying ideas (1) that mankind are sprung from Heaven and Earth, (2) that Heaven and Earth were originally a single being are found too widely distributed to be accounted for by a theory of Babylonian origin. (*E.g.* the tale of the sundering of Heaven and Earth is well known to be a myth among the Maories.) The correspondence between Babylonian and Maori ideas is surely to be accounted for rather by a resemblance between the mental condition of "barbarians" all the world over than by any theory of borrowing. And what is manifestly true in this case may be equally true of coincidences between Babylonian and Orphic ideas. Thus I do not think any good grounds can be discovered for assigning an Oriental origin to the latter. And it is at least significant that though the legends of Orpheus are connected with different localities, no legend connects him with the East. He is found connected specially with Pieria and Crete, and to some extent with Attica. And early legend further suggests close connexion of these localities in prehistoric times. (Thus for Athens and Crete we have the persistent Minos and Theseus story, for Athens and Thrace such tales as those of Boreas and Oreithyia, and of Tereus, Procne and Philomela.) Hence it seems rash to look for a non-Hellenic origin for Orphicism in the present state of our knowledge.

A. E. Taylor.

Aristotelian Studies. I. *On the Structure of the Seventh Book of the Nicomachean Ethics.* Chapters i.-x. By J. Cook Wilson. 1879. Reissue (1912), with a Postscript on the authorship of the Parallel Versions. Oxford: Clarendon Press, 1912. Pp. 103.

Most students of Greek Philosophy may be assumed to be acquainted with Prof. Cook Wilson's learned and acute discussion of the real or alleged "doublets" in the Seventh Book of the *Ethics*. As his pamphlet originally stood, the conclusion to which it pointed was decidedly disturbing, for the assumption of a different authorship for the separate versions of each "doublet," if consistently carried out, threatened to leave us in the gravest doubt whether we really possess Aristotle's own statement on some of the most important points of practical philosophy, such as the true character of choice and the real solution of the problem of "incontinence". It is therefore good news to learn from the *Postscript* to the present reissue that Prof. Cook Wilson has since satisfied himself, from his own experience as a teacher and writer, and from a study of the methods followed by the editors of Hegel's lectures, that a great many of the "doublets" may be sufficiently accounted for by the suppositions—natural enough in any case—that Aristotle himself modified points of doctrine in the course of working up his theories into fitness for final "dictation," and that he had sometimes occasion to repeat statements which he had previously made without access to the actual notes in which they had been recorded. On the more general question whether Aristotle's "works" are books meant for circulation or the manuscripts of lectures —the latter supposition would of itself account for at least as much variation as any one has ever detected in the "doublets"—Prof. Cook

Wilson still persists in holding to the former alternative. As the second has not only an intrinsic attractiveness but the authority of some very considerable names in its favour, I could wish he had given us his reasons for his decision and not contented himself with the magisterial dictum that "this idea" is "not to be entertained". As it is he merely hints that the internal evidence from style and the mechanical difficulties of taking the notes must be borne in mind. Now, as to the first point, the "internal evidence" has been actually appealed to on the other side; and as to the second, two observations occur at once. If the friends of Aristotle had his *own* manuscripts before them, as is assumed by Wilamowitz, the difficulty vanishes or becomes minimal, as Aristotle was at liberty to take as long as he pleased over the preparation of his discourses; and, moreover, we must not exaggerate the difficulty which a hearer would have in reporting a lecture. Plato assumes that the *Theætetus* is based upon a transcript of Socrates' conversation made at the time by Eucleides and corrected by subsequent appeals to Socrates himself on points where the transcriber was in doubt. This is enough of itself to show that in Plato's opinion it was at least a plausible fiction that a correct report of a long and difficult philosophical discussion could be obtained in this manner. And Aristotle's first hearers would, of course, have the opportunity, which Plato provides for by Eucleides' repeated visits to Socrates in the prison, of discussion with the master himself. Indeed it is not necessary to suppose, on the "lecture" hypothesis, what Prof. Cook Wilson seems to assume, that the pupil's first draught would consist of notes written down during the actual delivery of the lecture. Plato makes Eucleides say that he began by writing down the conversation between Socrates and Theætetus immediately *after it was over*. And I can bear witness from my own undergraduate days that it is far from impossible to make a verbatim report of a lecture even during its delivery. (I once had many such verbatim reports taken by myself of certain lectures by Prof. Cook Wilson and other Oxford lecturers.) Hence I cannot but think that the rejection of what I have called the "lecture-note" theory of the *Ethics* a little too peremptory. I could also have wished for some discussion of the very important view of Prof. Burnet that the discussions of the *Ethics* are essentially dialectical resolutions of τόποι. If we adopt this view the discrepancies which Prof. Cook Wilson urges as the main argument for his theory of "doublets" disappear, as it follows that the author is not bound by all or any of the solutions he gives to his problems. *E.g.*, the various suggested explanations of ἀκρασία will be successive "aggressions" to a full solution, not rival attempts at solution, and there will therefore be no reason why there should not be differences between them both in the statement of the problem and in its solution. It is all the more to be wished that some notice had been taken of Burnet's view, as Burnet's own application of it to the treatment of ἀκρασία in the *Ethics* (see his notes on the opening chapters of VII.) was plainly meant as a rejoinder to Prof. Cook Wilson's statement of his "doublet" theory in the original issue of the present pamphlet. The full strength of Burnet's position can only be appreciated when one considers the great extent to which the special points of difference between alleged "doublets" appear to be due to the desire to deal with special presentations of ethical τόποι in the Platonic dialogues. This preoccupation with the minutiæ of Plato's utterances is surely more explicable in Aristotle than it would be in an editor who had not been brought up in intimate personal relations with the Platonic circle. If we allow for it, we can, I think, ascribe most of the "doublets" to Aristotle himself without needing to explain them by the special causes dwelt on in Prof. Cook Wilson's *Postscript*, though

these, no doubt, must have been really operative in accounting for some amount of repetition with minor variations of expression. Nor should we forget, as Prof. Cook Wilson seems to do on page 93 at least, that there really is "ancient tradition" at least for the view that Aristotle did not make "copies for publication" of the *Physics*, *Metaphysics*, or *Ethics*.

A. E. Taylor.

Uber de. Einfluss Newtons auf die Erkenntnistheorie seiner Zeit. Von H. G. Steinmann. Friedrich Cohen. Pp. 81.

This little book is divided into four sections. The first deals with the nature of Newton's physical and metaphysical principles, and the historical setting in which they appeared. The remaining three deal with the influence of Newton's theories on his contemporaries or immediate successors in England, Germany, and France respectively.

Newton's expressed objection to hypothesis was really only an objection to the invention of corpuscular explanations based on a desire to reduce all physical action to pressure and impact, which were supposed to excuse a man from further examination as to the exact laws that motions obey. His actual method was hypothetical-deductive; you started with principles, deduced consequences mathematically, and then verified them. Nor was Newton averse to corpuscular theories as such, as his *Optics* shows; all that he disliked was (1) their gratuitous introduction to save *a priori* prejudices about the nature of interaction, and (2) their introduction as a general qualitative explanation without definite numerical values being assigned and results being mathematically deduced from these and the general laws of motion. Newton, according to Dr. Steinmann, left two very weak places in his system: (*a*) the doctrine of absolute time and space, and (*b*) the making of these an essential part of even pure mathematics,—*e.g.* space in geometry, time in Fluxions. Newton seems to have taken time as *the* independent variable *par excellence* and yet his definition of absolute time is circular.

It was on these points that successors fastened. Berkeley's attacks in the tract *De Motu* and in the *Analyst* on the whole spring from too radically opposite a view to be of great value; for Berkeley thought immediate sense experience so certain that hypothetical explanations of it by what could not be directly perceived were a mistake. But he made the criticism that absolute space is indistinguishable from mere nothing which other philosophers have made; and he has some perfectly valid criticisms on certain incautious expressions of Newton about the nature of a differential coefficient. Since Berkeley admitted the volitions of God as the causes of our sensations and of their law-abiding character, I do not see why he should not have accepted the Newtonian mechanics as an account of the laws to which out of benevolence to us God subjects certain of His volitions.

Leibniz in the letters to Clarke concerns himself partly with the question of space as the Sensorium of God, but mainly with an attempt to refute absolute time and space from the doctrines of the identity of indiscernibles and the principle of sufficient reason, and a rejection of *acto in distans* as irrational. Dr. Steinmann thinks he was right in the former and wrong in the latter undertaking. But he chides Leibniz for accepting the relativity of space and yet trying to keep the distinction between absolute and relative motion by the question of whether a body had or had not moving force in it. Whilst one cannot admire Leibniz's expedient, I should be inclined to say that its introduction only showed

that Leibniz's knowledge of the laws of mechanics had convinced him that something corresponding to Newton's distinction was essential, and he naturally made the distinction fit in with his general metaphysical theories.

Dr. Steinmann has some very interesting remarks about the influence of Newton on Wolff, who appears not to have been nearly so black a rationalist as he has been painted by Kant. He definitely preferred Newton's theory of attraction to Leibniz's, and his own idea of scientific method was not very different from Newton's, but has been misrepresented because he used the word *a priori* not as Kant used it but as we should use the word deductive. I am not acquainted with Wolff's writings, but as Kant certainly misrepresented both Leibniz and Hume, it is not unlikely that he also made mistakes about Wolff.

In France Newton's earliest converts were Voltaire and Maupertuis; but by far the most important was D'Alembert. To him we owe the general application of Newton's principles to rigid bodies, and he also discussed the nature of space and the measurement of time. He made a definite separation of pure from applied mathematics, considered algebra the most general and certain discipline, and freed mechanics from the exclusively geometrical treatment which Newton had used, and, on theoretical grounds, recommended.

There are several misprints in the book. Pages 22 and 23 are in the wrong order; and there is a bad printing muddle on page 62, a line being repeated.

C. D. Broad.

Der Gottesgedanke in der Geschichte der Philosophie. Dr. H. Schwarz. Erster Teil. Von Heraklit bis Jakob Boehme. Heidelberg, 1913. Pp. viii, 612.

The present volume forms the first part of a learned and eloquent work which, when completed, will apparently trace the history of the notion of God in the philosophers and theologians from the dawn of Greek speculation to our own days. The detailed study which Prof. Schwarz gives to the mystical writers, from Dionysius "the Areopagite" onwards, will make his book of real value to students of the history of *Religions-Philosophie*, who can hardly be expected, as a general rule, to master the enormous literature of mysticism for themselves. And, speaking more generally, I have found Dr. Schwarz always suggestive, if not always convincing, in his estimate of the religious aspect of the world-philosophies. I think, however, he often gives the impression of being swayed by an undue desire for neat logical systematisation. His classification of the different types of *Gottesbegriff* corresponding to the specific functions assigned to God in the various philosophies is luminous and instructive, but one cannot help doubting whether great philosophers have commonly kept to a single point of view in their use of the notion of God. Have not they, like other men, commonly sought the satisfaction of more than one kind of need in the thought of God? Thus it is, *e.g.*, true in the main to say that whereas with Plato, as with Prof. Varisco in our own day, it is the feeling for ethical values which gives his Theism its peculiar character, in Aristotle God figures mainly as the solution of a cosmological problem. For Plato God is, in the first instance, the "captain of our salvation," for Aristotle He is "the Great First Cause". But one puts the contrast in too sharp a form if one forgets that Aristotle also holds that "the really good" is the object of all natural and unperverted appetition, and for Plato God has a cosmological significance, and is not

only the "pattern" whom we must imitate, but also the "father and fashioner of us all". The difference between the two philosophers is, after all, only one of emphasis, like the difference between St. Paul and St. James about "faith" and "works".

I should add as a general reflection that Dr. Schwarz cannot free himself from certain standing prejudices quite as fully as the nature of his task requires. He has a violent hatred of "transcendence" in religious thought, which leads him to maintain, *e.g.*, that Our Lord's doctrine of the Father is purely "immanental," and gives a curious colour to his whole treatment of the great formative period of Christian theology. Thus he has to commit himself to the view that the whole development of the doctrines of the Trinity and the Person of Christ rested on a radical misunderstanding of the revelation of Jesus, and yet to recognise the patent truth that given the Gospel as the basis for theological speculation the development was inevitable: from such a basis nothing *but* the conception of the God-Man of the orthodox creeds could develop. So St. Augustine would probably be surprised to hear that he represents the true concept of a wholly "immanent" Son of God, cut loose from any special connexion with the Jesus of history, in contrast with the narrow historicism of Athanasius. If one does not share the author's "immanental" bias, one is likely to judge differently of the historical development. But Dr. Schwarz has at least always something to say which is worth pondering.

A. E. Taylor.

Kurt Riezler: *Die Erforderlichkeit des Unmöglichen; Prolegomena zu einer Theorie der Politik und zu Anderen Theorien.* München: George Müller, 1913. Pp. 262.

Politics neither fall beneath the sway of chance nor are susceptible of speculative determination *a priori*. Hence political theory must needs operate within a framework of presuppositions. It is the task of prolegomena to define these and to exhibit their relation to analogous structural principles valid on other levels of investigation,—to causality for example and notably, as presupposed in the world of mechanism within which, for the Kantian, organic, social and ethical life in some sense falls. And furthermore, to determine with what reserves the investigation is to be held capable of solving its problem.

Herr Riezler's free construction starts from Kant. He finds the laws or uniformities of politics in a realm of ends. He believes that the consideration of ends is forced upon us by failure upon the mechanical plane adequately, or without remainder to solve the problem even of that plane. In the field of ends too, while at every stage the solution of the problem of the stage, that is put forward, is a necessary step in advance, it cannot be adequate to the real. The residual factor ensures partial defeat. Just as in the mechanical order, the phenomenon is to be regarded as a fragmentary expression of something never fully projected into the spatio-temporal world, so we have on any and every level to acquiesce in an asymptotic relation between the construction by necessary forms or uniformities and the real which it makes its progressive attempts to express. The analogy of projection upon a more limited field with resultant imperfection of explanation alike of the projected real and of its projection is Herr Riezler's keynote.

It is virtue of his more direct derivation from Kant and because of the form in which he holds that on no level and in no point of view is the problem solved for the thing-in-itself, the infinite whole, that Herr

Riezler expresses his dissent from Bergson, to some of whose doctrines, notably that in regard to time, he exhibits affinities. It is again in connexion with the sense in which the postulates of reason are unsatisfied that Kant's own dualism between the form and the matter of morals comes in for criticism. In either case Herr Riezler sets forth clearly and modestly what the rejection means to him.

Apart from the main issue of his essay, Herr Riezler perhaps tends to scatter too much. He throws some light on the relation of an individual's end to those of others, and is instructive on the relation of individual to social good. He is oracular in characterising the differences of the sexes, where his *mots* may please the curious. He offers a very brief indication of a philosophy of the fine arts, has remarks of some interest on nationality, and does not resist the temptation of a fling at the dream of universal peace, scarcely justified perhaps on the principles which he himself outlines, and calling for a consideration of naturalistic evolution which is missing.

The author's quodlibetics supply however an agreeable foil to his stimulating expression of the spirit of Kant and his laboured central paradox.

HERBERT W. BLUNT.

Philosophie des Möglichen: Grundzüge einer Erkenntniskritik. Von Dr. JOHANNES MARIA VERWEYEN, Privatdozenten der Philosophie an der Universität Bonn. Leipzig: Verlag von S. Hirzel, 1913. Pp. x, 240.

Those who are especially interested in the philosophy of possibility, or the logic of probability, are most likely to be disappointed in Dr. Verweyen's new book, since it appears to contain very little, if anything, that might be regarded as an original contribution to the study of the problem of possibility in particular, or to a theory of knowledge in general. The fact is that Dr. Verweyen is chiefly interested in the philosophy of religion, and has only taken up the study of the problem of possibility because of its bearing on free-will, miracles, and similar topics intimately connected with the study of positive religions generally, and of Catholicism in particular. And although one could not justly impute to the author a lack of scientific sincerity, or of liberality of outlook, yet his thoughts on the subject seem to have been directed from the first towards a more or less definite goal, which, quite unconsciously no doubt, may have prevented him from considering the problem in all its purely scientific and philosophic aspects.

The main drift of the book may be briefly indicated as follows. Whatever is consistent with the Laws of Thought is formally possible; whatever is consistent with experience is materially possible; and *vice versa*. Now only some of the things that are formally possible are also possible materially, and only some of the things that are possible materially are actual. Thus everything actual is also materially possible and formally possible; and to be formally possible is to be logically thinkable or conceivable. Again what is logically inconceivable is also empirically or materially impossible, while that which is materially impossible may nevertheless be logically conceivable. To be conceivable, however, is not the same as to be imaginable. Our power of imagination is limited by our experience, and many things that we cannot imagine may nevertheless be quite conceivable, and therefore possible. And if only we make liberal allowances for the limitations of our experience, the realm of the possible becomes vastly extended, since formal consistency entails comparatively slight limitations. In this way it is made quite feasible to vindicate the possi-

bility of the Ascension, and of other ancient wonders, and even of the modern miraculous cures at Lourdes, etc. In some such manner Dr. Verweyen tries to make his philosophy of possibility subservient to the interests of Catholicism. And those who are especially interested in the apologetics of Christianity, or indeed of any other positive religion, may find Dr. Verweyen's book both interesting and suggestive.

A. Wolf.

Max Scheler: *Zur Phänomenologie und Theorie der Sympathiegefühle, und von Liebe und Hass; mit einem Anhang über den Grund zur Annahme der Existenz des fremden Ich.* Halle a. S., 1913. Pp. 154.

This acute and suggestive little book begins by distinguishing sympathy from experiences often confused with it. I may feelingly understand a friend's grief (nachfühlen); I may share it, if we have a common trouble; I may be infected by it; finally I may be sorry for it—feel for my friend's unhappiness as such. Only this last is sympathy proper. It involves no identification of myself with the friend; the sympathy is directed on him, as on a person distinct from me. Sympathy presupposes love, which therefore cannot be derived from it. Naturalistic explanations are also inadequate for both.

Love and hate are acts, directed on values. Love is described as the movement in which a valuable object reaches the highest value possible for it; hate as the opposite movement, in which the least possible value is reached. Loving a person is not the same as objectifying his qualities and loving them. His personality, which is not put together out of qualities, comes into existence for us only in our act of love, and is not an object for us then; we have it in so far as we complete his acts and experiences along with him, in 'nachleben' and in 'Gefolgschaft'.

The second part of the book, and also the last part of the appendix on the apprehension of other selves, I found interesting but difficult. I hope that in future work the author will carry on and amplify the conceptions involved.

Helen Wodehouse.

Ernst Platner und die Kunstphilosophie des 18 *Jahrhunderts, nach ungedruckten Quellen dargestellt.* Von Ernst Bergmann Privat dozent an die Universität Leipzig. Im Anhang; Platners Briefwechsel mit dem Herzog von Augustenburg über die Kantische Philosophie u. a. Leipzig: Verlag von Felix Meiner, 1913. Pp. v, 349. 10 M.

This book is a pendant to the author's recent work on German Æsthetic in relation to Baumgarten. It brings together a great deal of information about the condition of thought in Germany at the moment of Kant's emergence; and perhaps its greatest interest is the aid it gives in measuring the greatness of Kant's work. Much of the information, as the title tells us, is drawn from manuscript sources, especially from a volume of student's notes of Platner's lectures on Æsthetic; from a summons to Platner to account before an ecclesiastical authority for certain opinions "opposed to the Christian religion and to the maintenance of good order" in his Aphorisms (1776), in which Vaihinger has found anticipations of the point of view of the *Als ob;* and from letters, pre-

viously published only in part, between Platner and Friedrich Christian and Louise Augusta, dealing mainly with Kant's general philosophy.

The author claims no high value for Platner's Æsthetic theory. But the book is a carefully collected aggregate of curious and interesting detail; and Platner's attitude to Kant, a pre-Kantian prejudice which passed into something like a neo-Kantian scepticism, is exceedingly remarkable, and has of late brought Platner into notice once more.

B. Bosanquet.

Leitfaden zur Untersuchung der Zerobrospinalflüssigkeit. Bearbeitet von F. Plaut, O. Rehm, and H. Schottmüller. Mit 5 Figuren im Text und 21 teils farbigen Tafeln. Jena: Verlag von Gustav Fischer, 1913. Pp. vii, 150.

This is a careful study of the Cerebro-spinal Fluid, which, owing to recent widespread epidemics of cerebro-spinal meningitis and other infections, has come into great prominence both pathologically and administratively. The study covers the general physics, chemistry, serology, cytology and bacteriology of the fluid as well as the special diseases associated with it. The plates, both coloured and uncoloured, will be a joy to every student. But, though excellent in its field, this study contains nothing specifically psychological or metaphysical or ethical. It is only right that the publishers, who have taken the greatest pains with the plates, should understand that Mind cannot very well deal with the problems discussed in works like these.

W. L. M.

L'origine subcosciente dei fatti mistici. P. Agostino Gemelli. Firenze, 1913. Pp. 119.

A brief and popular but scrupulously fair examination of the question how far the religious experience in general and the "mystic fact" in particular can be accounted for psychologically by the doctrine of subconsciousness. Father Gemelli naturally comes to the conclusion that "explanation" of this kind is only successful in dealing with some of the incidental accessories of the "mystic fact". The kernel of the experience, —the vivid sense which the mystic has that he is raised above the level of his normal self by actual contact with a higher personality is simply left unaccounted for by the psychologists of the subconscious. On this point the writer of this note feels inclined to agree with Father Gemelli, as he agrees also with the criticism passed on the illegitimacy of extending an hypothesis originally devised to deal with diseased and abnormal mentality to the explanation of experiences which, however rare and remarkable, are seen in their purest form in persons of unusual mental vigour, concentration and sanity. Still, while I would not deny Father Gemelli's conclusion that the central "mystical fact" *may* be incapable of adequate psychological description, I do not see why he should hold, as he apparently does, that it *must* be incapable of such description if the mystic is right in holding that his experience actually comes from God. Admittedly God does usually influence the mind through the machinery of secondary causes, and Father Gemelli further admits the presence of this machinery in the stages by which the soul is prepared for the mystic experience. Is it really necessary to theological orthodoxy to deny that the experience itself also involves the play of the "psychophysical mechanism"? I do not see why it should be so, unless one also holds that the

"psychophysical mechanism" equally counts for nothing in creative genius. Father Gemelli maintains this, but I doubt whether he would be so confident if, instead of confining his criticism to psychological theories based on the "subconscious," he had considered the possible analogy between the play of *normal* consciousness and the intuitions of the genius and the mystic. As it is, the possibilities of psychological description seem to be unduly restricted by the tacit assumption that a psychological account must be given in terms of the "subliminal," if given at all. In short, I do not feel sure that the impossibility of completely describing the "mystic fact" indicates a failure of continuity between that fact and the rest of our inner life. Does not the kernel of the fact vanish in any attempt to describe the functioning of the mind in purely psychological terms. *E.g.*, the "kernel" of any fact of cognition, however elementary, lies just in our certainty that we are knowing a true proposition, but what it is that makes the difference between such certain knowledge and mere confident error is more than any theory of the working of a psychological or psycho-physical mechanism can tell us. Münsterberg, who has worked out the purely psychological point of view with exceptional consistency, expressly declares that the "mind" studied by Psychology "knows nothing by its cognition and wills nothing by its volition". Thus I am not sure that Father Gemelli's contention really establishes the absolutely unique and "singular" character of the mystical experience; at the same time I do not see that it is necessary to establish such a result in order to justify the mystic's confidence that his experience really "comes from God".

A. E. T.

Opera hactenus inedita Rogeri Baconi. Fasc. IV. "Liber Secundus Communium Naturalium Fratris Rogeri, de Celestibus. Partes Quinque." Edidit Robertus Steele. Oxonii e Typographeo Clarendoniano, 1913.

One can only congratulate Mr. Steele on the growing excellence of his successive editions of the parts of Bacon's *Naturalia* and look forward with eager interest to the fifth fascicule which is to complete the work. The present instalment will, I fear, not reach a wide circle of students among the followers of philosophy, since it is only a specialist here and there who possesses the knowledge of mediæval astronomy requisite for complete understanding, yet the light thrown upon the difficulties and controversies of Bacon's contemporaries and Arabian predecessors is precious for those who cannot make a wide study of the subject for themselves, as showing how far from correct is the widespread notion that the "Middle Ages" uncritically accepted a single canonised theory of what we should regard as the fundamentals of astronomical science. To be sure, in all that concerns the metaphysics of the doctrine, the theory of the "fifth body," the incorruptibility of the "heavens," the nature of the "spheres," and the rest, Bacon, as usual, shows himself an almost slavish follower of the "philosopher" and the "commentator". But in Astronomy proper, he has views to defend for the sake of which he does not shrink from contradicting the "philosopher" to his face, and denying the validity of his arguments. I do not know enough of mediæval Astronomy to judge how far Bacon's theories are typical, but it is interesting to find that he upholds the doctrine of the "ten" spheres, placing the "watery firmament" of Genesis i. between the *primum mobile* and the heaven of the fixed stars. It is still more interesting that he thinks it most probable that the whole Ptolemaic scheme of eccen-

trics and epicycles is a mathematical fiction, and approves, even in mathematics, of the scheme of Al-Petragius, which attempted to account for the "appearances" by assuming only circular revolutions, all in the same sense. He has some remarks, which impress one as showing striking scientific penetration, about the unwisdom of deserting a physical theory which is otherwise promising merely because it presents problems in pure mathematics which are not yet soluble, and he is quite alive to the unfinished and progressive character of his science. Many of the mathematical objections urged against the admirably simple scheme of Al-Petragius, he submits, might vanish if observations and tables were worked out with it for their basis. One feels that a little later Bacon would have been very ready to consider the merits of Copernicanism, at least as a mathematical doctrine.

I may usefully append to this note a list of one or two passages in which the text, even as reconstituted by Mr. Steele's excellent editing, does not seem quite definitive.

P. 325, 17, est ibi *densior raritas;* the reading of O *diversitas raritatis* should have been promoted to the text. P. 345, 3, should not *apparet* here be *appar(er)et*, and so again in l. 22? p. 349, 32, *possibilitatem, possibilitatis?* The printed text seems to give a wrong sense. The meaning is that "outside the world" there is neither an actual vacuum nor a *possibilitas ad vacuum.* P. 352, 17, O is right in omitting *partes.* P. 370 l. 27, *a centro possunt linee duci infinicies vel non, tot quin plures.* The comma after *non* destroys the sense, as Bacon means that "there are an infinity of radii, or, if (as he would hold) there cannot be an actual infinite, there are never so many but what there may be more" (*i.e.* the number is indefinitely great). P. 378, 6, the comma after *esset* should be removed, the sense being *si esset plane figure,* "if it were of a plane figure, there would be a vacuum". P. 379, 24, *essent* should be *esset* (the subject is *vacuum*). P. 405, 15, for *incorruptibilibus* the argument requires us to read *corruptibilibus.* P. 419 l. 38 *ut uniformiter movere appareant.* The sense seems to require *(in)uniformiter* and *moveri.* P. 435, 25, *encentricam,* is not this a mere misprint for *ecentricam?* P. 448, 23-4, I think the comma at the end of l. 23 should be removed, as the *ipsum* of 24 obviously belongs to the *ecentricum* of 23; the *eum* of 24 also strikes me as doubtful, unless we construe "*corpus solis revolvit eum* (sc. *solem*)".

A. E. Taylor.

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Charles J. Shebbeare, *Religion in an Age of Doubt*, London, Robert Scott, 1914, pp. xx, 219.

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Louis Couturat, *The Algebra of Logic*, authorised English translation, by Lydia Gillingham Robinson, with a preface by Philip E. B. Jourdain, Chicago and London, The Open Court Publishing Company, 1914, pp. xiv, 98.

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VIII.—PHILOSOPHICAL PERIODICALS.

Philosophical Review. Vol. xxii., No. 3. **F. Krueger.** 'New Aims and Tendencies in Psychology.' ["A complete scientific comprehension of the psychic life must systematically include a genetic theory of civilisation."] **G. P. Adams.** 'Mind as Form and as Activity.' [The concept of mind or self as activity, rather than as form or relation, is best fitted to survive in modern philosophy. Implications of the relational theory of consciousness; nature of mental activity; historical considerations.] **G. A. Tawney.** 'Methodological Realism.' [The doctrine of the externality of relations commits the New Realism either to the pure phenomenalism of Hume or to the thing-in-itself of Kant.] Discussion. **J. S. Moore.** 'Duration and Value.' [An analogy which subsists between the theories of Bergson, and Münsterberg's view of the relation of metaphysics and psychology, may be applied to the problem of time: psychologically discrete, time is from the standpoint of value continuous.] **E. B. Talbot.** 'In Reply to Professor Schaub.' [Fichte conceives his principle as unity of thought and being.] Reviews of Books. Notices of New Books. Summaries of Articles. Notes.—Vol. xxii., No. 4. **A. Lalande.** 'Philosophy in France in 1912.' [Durkheim's *Vie Religieuse;* Brunschvicg's *Philosophie Mathématique;* Bergson; Couturat.] **L. E. Hicks.** 'Identity as a Principle of Stable Values and as a Principle of Difference.' [Modern logic treats identity as a predication principle, whereas it is primarily a principle of stable values; critique of law of significant assertion.] **W. K. Wright.** 'Ethical objectivity in the Light of Social Psychology.' [In McDougall's doctrine of primary instincts and emotions we have the basis for an objective ethics which, being psychologically grounded, is scientific and empirical.] Discussion. **A. O. Lovejoy.** 'Error and the New Realism.' [Four monistic realists (Holt, Montague, Pitkin, McGilvary) offer different explanations of error; all are unsuccessful.] Reviews of Books. Notices of New Books. Summaries of Articles. Notes.

Psychological Review. Vol. xx, No. 4. **J. R. Angell.** 'Behaviour as a Category of Psychology.' [Welcomes the tendency to objective methods and description, but deprecates the sacrifice of introspection.] **H. L. Hollingworth.** 'Judgments of Similarity and Difference.' [Experiments with samples of handwriting. Personal consistency for judgments of similarity is greater than for judgments of difference, though with repetition, adaptation, and familiarity with material the two categories tend to approach. Subjectively, judgments of similarity are the more easy, natural, and confident; the criteria of judgment are different in the two cases.]. **J. F. Shephard** and **H. M. Fogelsonger.** 'Studies in Association and Inhibition.' [Experiments with variously arranged series of nonsense syllables, made under objective and introspective control, show that in the acquisition of associations there is involved an inhibitory process which is not the mere result of drainage or division of energy, but has some deeper basis as yet unknown. This inhibition

plays an important part in many of the more complex mental processes]. **J. Peterson.** 'The Place of Stimulation in the Cochlea *versus* Frequency as a Direct Determiner of Pitch.' [Decides, after a review of current theories and criticisms, that the Helmholtz resonance-theory of specific energies still holds the field.] **K. M. Dallenbach.** 'The Relation of Memory Error to Time Interval.' [Tests with pictures and geometrical forms show that the memory error increases at first very rapidly, then more slowly, with time interval. The curve is thus the converse of Ebbinghaus' memory curve.]—Vol. xxi., No. 5. **E. K. Strong.** 'The Effect of Time-Interval upon Recognition Memory.' [Correct recognition (tested by lists of words) decreases at first very rapidly, then more slowly, with time-interval between exposure and identification. If percentage and validity are both taken into account, the relation of recognition-memory to time-interval is closely similar to that found by Ebbinghaus for recall-memory. Recognition appears to depend upon the revival of concomitant process.] **C. E. Ferree.** 'A Note on the Rotary Campimeter.' **R. M. Ogden.** 'Experimental Criteria for Differentiating Memory and Imagination in Projected Visual Images.' [Experiments by the word-method reveal general tendencies as regards localisation, distinctness and reaction-time, but afford no specific ground of differentiation. In the last resort the difference is probably one of meaning, and is carried by imageless elements.] **M. E. Haggerty.** 'The Laws of Learning.' [To the law of exercise (passage through *a-b-c-d* becomes easier and quicker with repetition), and the law of effect (reduction to *a-d* is determined by the nature of *d*) must be added a law of the linear and lateral irradiation of physiological states.] Discussion. **G. van N. Dearborn.** 'Ideo-motor Action.' [Critique of Thorndike.]

American Journal of Psychology. Vol. xxiv., No. 4. **K. M. Dallenbach.** 'The Measurement of Attention.' [Continues, with auditory stimuli, the study begun by Geissler with visual material. Experiments by the single-task and double-task methods show that attention may be measured introspectively in terms of attributive clearness. Special results are: a high correlation of reaction-time with degree of attention; a uniformly distracting effect of 'distractors'; and a reciprocal variation of levels in consciousnesses of the dual-division type.] **C. A. Ruckmich.** 'A Bibliography of Rhythm.' **G. H. Taylor.** 'Clinical Notes on the Emotions and Their Relation to the Mind.' [Emotivity varies with surroundings, age, disposition, type.] **D. O. Lyon.** 'A Rapid and Accurate Method of Scoring Nonsense Syllables and Words.' **H. L. Hollingworth.** 'Characteristic Differences between Recall and Recognition.' [Recognition and recall seem to be based on a neural mechanism of common pattern, operating in reverse directions: thus, determining tendencies are more effective for recall, the value of the single presentation is greater for recognition.] **E. J. G. Bradford.** 'A Note on the Relation and Æsthetic Value of the Perceptive Types in Colour Appreciation.' [Distinguishes five perceptive types or modes of appreciation of colour.] **M. Meyer.** 'The Comparative Value of Various Conceptions of Nervous Function based on Mechanical Analogies.' [Criticism of Russell's analogy of hydraulic machine; restatement of author's conception.] **E. T. Burr** and **L. R. Geissler.** 'An Introspective Analysis of the Association-reaction Consciousness.' [The 'concealing of a complex' is a special case of consciousness under negative instruction; its differentia is emotional intensity.] **J. E. Coover.** '"The Feeling of Being Stared At": Experimental.' [Belief in the feeling is common and groundless. It depends upon the ascription of objective validity to certain frequently experienced subjective impressions.] **F. Angell.**

'Projection of the Negative After-image in the Field of the Closed Lids.' [Critque of Mayerhausen.] **E. B. Titchener.** 'Professor Martin on the Perky Experiments.' [Minor Studies from the Psychological Laboratory of Vassar College.] **M. Browning, D. E. Brown, M. F. Washburn.** 'xxii. The Effect of the Interval between Repetitions on the Speed of Learning a Series of Movements.' [Distribution is found to favour learning in a case where the motor habits are not those of articulation; Jost's law may be a law of habit formation.] **H. Clark, N. Quackenbush, M. F. Washburn.** 'xxiii. A Suggested Coefficient of Affective Sensitiveness.' [Comparative study of affective response to colours and sounds; there is no correlation with ideational type.] **E. B. Titchener** and **W. S. Foster.** 'A Bibliography of the Scientific Writings of Wilhelm Wundt: Fifth Supplementary List.' Book Reviews. Book Notes. 'Psychology and Philosophy.'

British Journal of Psychology. Vol. v., Part 4. **J. C. Flugel.** 'The Influence of Attention in Illusions of Reversible Perspective.' [Experiments showed that two figures of reversible perspective, when seen simultaneously, may fluctuate independently of one another This is unfavourable to the theory that such reversals of perspective are due to eye-movements, and to that which attributes them to a physiological cause affecting the whole of the central nervous system at the same time. When complicating details were added to the figures it was found that, even then, reversals may occur when attention was concentrated on the main outlines of the figures. When subjects adopted definite prescribed attitudes (*e.g.*, "willing" to see the figure without any perspective, or concentrating attention on one particular line) it was found that direction of attention was a highly important factor in such reversals of perspective. Usually that part of a figure which was especially attended to, appeared nearer to the observer. A special set of experiments on fixation showed that the above results cannot be due to eye-movements.] **Godfrey H. Thompson.** 'An Inquiry into the Best Form of the Method of Serial Groups.' [A discussion largely mathematical, with special reference to the two questions: (1) What is the best proportion of correct answers to adopt for the critical group? and (2) What is the best size of the group? These questions are further considered by application of general equations ot the group process to data gained in experiments previously reported by the writer in the same journal. Answers suggested to the given questions are (1) the 80 per cent. point is preferable to 50 per cent. point in that it can be measured more accurately in the same time; (2) the smaller the group the better, indicating that mathematically the Method of Minimal changes is superior to any Method of Serial Groups—in which descents or ascents are stopped at the critical point.] **C. Spearman.** 'Correlation of Sums or Differences.' [Formulæ given for finding correlations of sums (*e.g.*, correlating pooled results of several tests with another order), or for correlations of differences (*e.g.*, improvement upon a former test shown in a second test), and of other averages. The customary replacement of the correlation of averages by the average of correlations is shown to be unsatisfactory.] **Gladys W. Martin.** 'A Study of Mental Fatigue.' [Fatigue was produced by arithmetical work of one or two hours' length. Subjects were tested, before and after work, as regards (1) spatial threshold, (2) muscular capacity, (3) rate of respiration, (4) rate of pulse, (5) speed and accuracy of perception. Analysis of the work itself showed that fatigue cannot be invariably estimated by diminution either of speed or of accuracy of mental work owing to complicating factors, *e.g.*, habit of accuracy and of method of working. Nor were the results of the special tests uniform even for three subjects.

Fatigue of one subject was shown by diminution of pulse and respiration rates, of another merely in the rate of pulse, and speed and accuracy of perception, of the third in rate of respiration and accuracy of arithmetical work. Writer concludes that signs of fatigue differ according to the individual, whose response under fatigue varies according to the "stability of disposition" previously acquired. Numerical estimation as to speed and accuracy of work may conceal fatigue.] **A. Wohlgemuth.** 'On Memory and the Direction of Associations' [Experiments with nonsense-syllables showed that, while the association of a syllable with the succeeding syllable is markedly stronger than its association with the preceding syllable, with diagrams and colours this was not the case. The directions of associations could be greatly influenced by voluntary effort, but much more so with diagrams than with nonsense-syllables. The predominant "forward" associations of nonsense-syllables is ascribed to the motor element, which was predominant in learning the syllables, but not with diagrams and colours; this suggests a distinction between physiological and psychological memory, association being reversible only in the latter kind.]

Revue de Métaphysique et de Morale. 'Numéro consacré à Henri Poincaré.' Armand Colin. The September number of the *Revue de Métaphysique et de Morale* is devoted to the memory of the late Henri Poincaré whose recent untimely death has left a gap in the scientific world that will not soon be filled. There are articles on Poincaré as a philosopher, a mathematician, an astronomer, and a physicist by **Brunschvicg, Hadamard, Lebeuf,** and **Langevin** respectively; and they are all worth reading. One gets a vivid impression of Poincaré's extraordinary eminence as a mathematician from M. Hadamard's article; it occupies forty-one pages and yet is little more than a list of his achievements in almost every branch of analysis. From M. Langevin I learnt two facts about Poincaré which were quite new to me; one was his interest in the technical application of scientific theories, the other was the fact that Poincaré seems to have had an innate capacity for discovering without difficulty the meaning of any symbolism, so that he could pass at ease from works written in one notation to those written in another where most men would have had to waste time and risk mistakes. It is difficult to know who is to fill Poincaré's place in the criticism of mathematical physics, at a time when that science is meeting with unprecedented theoretical difficulties of the most fundamental kind over the theory of Relativity and the Doctrine of Quanta. One of Poincaré's last articles was on the latter subject; and his rare combination of complete mastery of pure mathematics with a knowledge of the problems of physics and a philosophic mind fitted him peculiarly for such investigations.

Perhaps the most interesting result for the general reader that emerges from the article on Poincaré as an astronomer is that he refuted the proof that the present arrangement of the solar system is stable if left to itself, and thus removed one more favourite nineteenth century argument for design from the laws of the physical world.

The readers of Mind, however, will presumably be more interested in Poincaré as a philosopher. I cannot help feeling that, whilst all his books make stimulating reading, he was less eminent as a philosopher than in other branches of mental activity. M. Brunschvicg gives a clear account of Poincaré's opinions and defends them from the purely nominalist interpretation which M. Le Roy put on them. This is certainly quite in order; Poincaré himself in his *Valeur de la Science* seems to me to have left very little of M. Le Roy's theories standing. At the same time I think that Poincaré often failed to make clear what he meant by conven-

tion. There are two points quoted by M. Brunschvicg and one which he does not quote which will make clear what I mean. The first is the question whether there is any real difference between the Ptolemaic and the Copernican system of astronomy; the second is Poincaré's remark that in dealing with molecular physics you can always make your equations of motion of the second order (as they can be seen to be for the solar system) provided you assume enough molecules. And as you cannot perceive molecules you are at liberty to assume as many as you like, so that the validity of the laws of motion for molecular systems is a convention. Neither Poincaré nor M. Brunschvicg seem to notice that the element of convention is very different in the two cases. In the first Poincaré greatly underrates it. If motion be purely relative there *is* no difference between the two systems. Nor is Poincaré right in saying that results that are mere chance on the Ptolemaic system are consequences in the Copernican, for the two are simply different ways of describing precisely the same facts, and the sole difference between them is that of complication. On the other hand, in the matter of the molecules, the element of convention is overrated. If there are molecules at all there must be some definite number of them; hence the question whether their laws of motion lead to equations of the second or third order is one of fact, although we may not be able to decide it. You cannot be right or wrong about a convention, and that is why, if the relative theory of space be true, the question between Ptolemy and Copernicus *is* conventional, and that about the laws of motion is not. This brings me to a third point not mentioned by M. Brunschvicg. Poincaré had a bad habit of supposing that when it is practically impossible to be certain that you have got the right measure of a quantity there is no definite quantity to measure. Thus all his discussions about measuring-rods changing in length only tell us that if the lengths in the world all altered we might not be able to know it; but *he* seems to think that they prove that there is no such thing as an absolute distance at a given moment. Yet to talk of measuring-rods changing in length according to laws actually assumes what he is trying to disprove. And I am very much afraid that he thought that the rejection of absolute distance was involved in the rejection of absolute space, though I hesitate to bring such an accusation against such a man.

Poincaré of course recognised that the three systems of metrical geometry are all theoretically possible, and it was his merit to point out that you could not decide between them by experiment. Yet I could wish that he had gone much further into the very puzzling problem as to what exactly is *meant* when a person asks whether 'our space' is Euclidian. If, as he justly says, all experiments are performed on the properties of bodies or of light, and not on those of space, how can one say that the convention of Euclidian space is suggested by experience of solids?

I do not think Poincaré was by any means at his best in his controversies with the 'Logisticians' as he liked to call them. It is significant that whilst he was revelling in the contradictions of infinity Mr. Russell was solving them by the Theory of Types. And his attempts to prove that mathematical reasoning cannot be reduced to pure logic because it involves the principle of Mathematical Induction seem to me to have been based on a theory of deduction which ought to have led him to Mill's views about the syllogism. How he could call mathematical induction a case of perfect induction, and how M. Brunschvicg can accept this are questions that I cannot answer. His alleged perfect induction involves the passage from 'any' to 'all,' which is (*a*) quite independent of experience, and (*b*) as necessary in formal logic as in mathematics.

But, whatever may have been Poincaré's faults as a philosopher, he was

a very great man. He set the claims of the human intellect high in an age which was inclined to deny them, and his own intellectual achievements amply supported the claims. He is one of the few men to whom, without exaggeration, we may pay the compliment so justly paid to Newton: '*Sibi gratulentur mortales tale tantumque exstitisse humani generis decus*'.

Revue de Philosophie. 1er Janvier, 1914. **P. Duhem.** 'Time and Motion according to the Schoolmen.' [Contradictory opinions of Pierre Auriol and Gregory of Rimini, on the question whether motion is possible to the universe as a whole. Gregory writes: 'A body moving steadily and regularly, and known as such, is time'. But how are we to know it? This comes to identifying time with the clock: where is the standard clock?] **L. de Contenson.** 'Kant on the *a priori* character of the Foundations of Mathematics.' [Kant never got beyond elementary mathematics, did not understand what a mathematician now means by 'continuity'. The concepts of time and space are imposed on the understanding by the nature of the object, not imposed on the object by the understanding of the subject. Kant himself expressly declares that, away from the concept of time, the subject is led to see a contradiction, that is an absurdity, in every change. Kant driven in upon Hegel.] **A. Véronnet.** 'Cosmogonic Hypotheses.' [History of the Earth and its Heat. Founded on Poincaré. Of interest to the mathematician.] **G. Jeanjean.** 'Critical Review of Pedagogy.' [A legion of new books on the *Émile* of Rousseau. Froebel and the Kindergarten.]

Archives de Psychologie. Tome xiii., No. 3. **J. M. Lahy.** 'Une calculatrice prodige; étude expérimentale d'un cas de développement exceptionnel de la mémoire des chiffres.' [Case of a sister of Diamandi. There is no traceable heredity, and no sign of special endowment; the subject has industriously worked up visual rhythms, visual colour-imagery, motor memory, number-form, etc.] **E. Claparède.** 'Encore les chevaux d'Elberfeld.' [New observations and a review of publication, which leave us where we were. In an appendix, J. de Modzelewski suggests a theory of "inhibitory motor suggestion".] Recueil des Faits: Documents et Discussions. **V. Demole.** 'A propos d'un cas de conviction spontanée.' [Reply to Flournoy.]

Archiv f. d. gesamte Psychologie. Bd. xxvi., Heft 3 u. 4. **T. Haering.** 'Untersuchungen zur Psychologie der Wertung auf experimenteller Grundlage, mit besonderer Berücksichtigung der methodologischen Fragen. i. Ziel und Methode der Untersuchung.' [General defence of the Würzburg method. Programme of experimental work, in the principal fields of value, upon the psychology of valuation.] **J. Geyser.** 'Beiträge zur logischen und psychologischen Analyse des Urteils.' [Running criticism of A. Reinach, *Zur Theorie des negativen Urteils*, 1911, with construction in accordance with the writer's *Lehrbuch der allgemeinen Psychologie*, 1912.] **A. Kronfeld.** 'Über Windelbands Kritik am Phänomenalismus.' [Phenomenalism does not attempt, as it is charged, to "make the totality of the determinate in consciousness the appearance of a being which is in theory indeterminable". Fries' critique of knowledge saves us both from transcendentalism and from psychologism.] **A. Schackwitz.** 'Über die Methoden der Messung unbewusster Bewegungen und die Möglichkeit ihrer Weiterbildung.' [Methods for registering changes in size of pupil, contraction of bladder, heart-move-

ments, pulse, mass-movements of blood, have been brought to various degrees of refinement; none, at present, promise much for psychology Even the registration of the curve of breathing is simply a method of control. The recording of the expressive movements of the face, and of the involuntary tremor of the voluntary musculature (*e.g.*, of the hands, for which a new instrument is described), is of greater value.] **M. H. Boehm.** 'Der zweite deutsche Soziologentag (20-22. Okt., 1912, zu Berlin).' 'XVII. Internationaler Medizinischer Kongress, London, 6.-12. August, 1913.' Literaturbericht. Bd. xxvii., Heft 1 und 2. **W. Hellpach.** 'Vom Ausdruck der Verlegenheit: ein Versuch zur Sozialpsychologie der Gemütsbewegungen.' [On embarrassment, the most social of the emotions: its nature, sources, localisation, and its expression or outward symptoms; with special reference to the transformation and dissociation of these symptoms (embarrassed expression in woman a means of attraction; eccentric and pathological cyclism).] **T. Haering.** 'Untersuchungen zur Psychologie der Wertung (auf experimenteller Grundlage) mit besonderer Berücksichtigung der methodologischen Fragen, ii.' [Second instalment; analysis of the experience of the relation of finality (means supplied to end, and to means) and of economic and hedonic valuation. Tentative conclusion: all valuation is psychologically a matter of subsumption. The paper contains a biological theory of pleasure-pain.] **R. Friedmann.** 'Vorwort zur Charakterologie.' [Character is a constantly recurring complex of forms of reaction which, though not generic or interindividual, reappears as typical in the most diverse constitutions; and characterology can therefore be worked out only by the objectification of one's own psyche.] **H. Schmitt.** 'Psychologie und Logik in ihrem Verhältnis zur Sprache und zur Methode sprachlicher Untersuchung.' [Critique, in the spirit of Humboldt, of Wundt's and Paul's definition of sentence; new definition, with explication of the implied relations of language to psychology and logic; need of a study of the occasional and logical (individual and generic) meanings of terms.] **F. M. Urban.** 'Ein Apparat zur Erzeugung schwacher Schallreize.' [A tuning-fork, actuated by another, electrically driven fork, is rotated on its long axis.] **P. Koehler.** 'Ein Beitrag zur Traumpsychologie.' [Occurrence of intense religious feeling in a dream.] Literaturbericht. **C. Seeberger.** 'Wilhelm Wundt und seine Kritiker.' Einzelbesprechung. [Urban on Thomson, *Psychophysical Methods.*] Zeitschriftenschau.—Bd. xxvii., Heft 3 und 4. **A. Gregor.** 'Die hautelektrischen Erscheinungen in ihren Beziehungen zu Bewusstseinsprozessen.' [Experiments on the psychogalvanic phenomenon by the improved Tarchanoff method. Indifferent sensations are attended by a strong reaction, and there is no qualitative difference between the reactions to pleasant and unpleasant stimuli. Voluntary interference with the reaction is impossible. Actual emotions find pronounced electromotor expression. The paper deals further with the effects of fatigue, repetition, intercurrence of stimuli.] **T. Haering.** 'Untersuchungen zur Psychologie der Wertung (auf experimenteller Grundlage) mit besonderer Berücksichtigung der methodologischen Fragen: Schluss.' [Report of work upon moral and logical valuations. General result: all psychological-phenomenological analysis of valuation brings us face to face with pre-existing values; "psychology can never show how, psychologically, a value takes shape"; value itself depends upon extra-psychological conditions. An appendix gives samples of the observers' reports.] **O. Selz.** 'Die Gesetze der productiven Tätigkeit.' [Creation cannot be explained by reproduction alone, but requires the operation of a specific abstraction and combination. Four cases are distinguished: where means to the end are known, where they are not known but can be

found, where we must wait upon chance, and where a result produced in past experience is now intentionally made a goal of endeavour.] **R. Mueller-Freienfels.** 'Der Einfluss der Gefühle und motorischen Faktoren auf Assoziation und Denken.' [Polemic against the associationist psychology. What mind conserves, and what is active in mind, is not the intellectual idea, but rather the attitude, which shows itself in feeling, motor tendency, motor adaptation, etc. Speech, in particular, is a motor function and does not give rise to 'verbal ideas'.] **W. Wirth.** 'Eine Bemerkung von G. F. Lipps zu den mathematischen Grundlagen der sog. unmittelbaren Behandlung psychophysischer Resultate kritisch erörtert.' [Müller's point of departure is not only admissible; it is also the sole generally valid starting-point, and has practical advantages.] Literaturbericht.

ZEITSCHRIFT FÜR PSYCHOLOGIE. Bd. lxiv., Heft 1 u. 2. **G. Heymans.** 'In Sachen des psychischen Monismus, ii. Psychischer Monismus und "Psychical Research".' [Argues in detail that the facts of telepathy and spirit-communication, if they are facts, square better with psychical monism than with McDougall's animism.] **P. Meyer.** 'Über die Reproduktion eingeprägter Figuren und ihrer räumlichen Stellungen bei Kindern und Erwachsenen.' [Experiments with simple nonsense-forms. Children from seven years of age are adequate to the observations; they are more liable than adults to errors of position and direction; they err oftener by underestimation and less often by overestimation of size. Impression and retention are not furthered by the sight of surrounding objects. If the space-relations between stimulus and observer are varied, various types of impression become apparent; the normal exposure is preferred.] **W. Koehler.** 'Akustische Untersuchungen III und IV. Vorläufige Mitteilung.' [The tonal quality *s* is optimal at 8400 vs.; a pure *f* appears at about 17,000; soft *ch* has been heard above 30.000 and is probably pure at about 34,000; the limit of tone therefore lies presumably between 34,000 and 68,000. In sung vowels, the vowel-quality derives not only from the partial corresponding to the vowel, but from all partials which possess the vowel-valency. Partials combine to a resultant: and what we 'hear out' are not 'the' partials but remnants only. The observations suggest a remodelling of the Helmholtz theory to a theory of components.] Besprechungen. [Hellpach on Freud, *Traumdeutung*, etc.; Fischer on Cohn and Dieffenbacher, *Geschlechts-, Alters-, und Begabungsunterschiede bei Schülern*.] Literaturbericht. Der XVII. Internationale Medizinische Kongress. Kongress für Aesthetik und allgemeine Kunstwissenschaft. Bd. lxiv., Heft 3 u. 4. **C. von Maltzew.** 'Das Erkennen sukzessiv gegebener musikalischer Intervalle in den äusseren Tonregionen.' [The estimation of successive intervals depends neither on consonance (fusion) nor on distance, but on a specific experience of 'passage' or 'transition'. This experience is subject to the known laws of memory; to explain the mistakes made, however, we must add the hypothesis (borne out by other experiments) that the perception of pitch in the upper half of the 4-accented and throughout the 5-accented octave, as well as in the lower half of the contra-octave, does not accord with what one would expect from pitch-number (normal paracousia).] **W. Baade.** 'Über Unterbrechungsversuche als Mittel zur Unterstützung der Selbstbeobachtung: Vorläufige Mitteilung.' [Description of apparatus. Argues that, by systematic interruption of an experiment at known points, it is possible to get descriptions, by direct introspection, of processes otherwise accessible only to retrospection.] Besprechungen. [Selz on Watt's *Elements of Experience*; Wreschner on Dessoir's *Geschichte der Psychologie*.] Literaturbericht.

Der IX. Internationale Physiologenkongress. Bd. lxiv., Heft 5 und 6. **G. von Wartensleben.** 'Über den Einfluss der Zwischenzeit auf die Reproduktion gelesener Buchstaben.' [Reproduction of tachistoscopically exposed letters at intervals of 0 to 60 sec.; experiments made to test Finzi's optimal interval of 4 sec. The optimal interval (varying from 0 to 15 sec.) cannot be sharply determined for any observer, owing to complication of conditions; and conversely an unequivocal influence of interval upon range of right reproduction cannot be made out. Interval has both a favourable and an unfavourable effect (gives time to fulfil instructions, *e.g.*, for translation into auditory-motor symbols; gives time for conflict and vacillation, *e.g.*, in visual imagery.] **R. Mueller-Freienfels.** 'Typenvorstellungen und Begriffe: Untersuchungen zur Psychologie des Denkens.' [Every perception, and therefore every idea, is intrinsically typical, general: it is then further individualised or generalised by attitude and context. A perception is constituted by unity of reaction, *i.e.*, by a fringe of affective and motor processes; and these elements persist throughout the series of like formations. An abstract concept, *e.g.*, is a word about which cluster feelings and dispositions to activity, determined by context; understanding and knowledge themselves are not solely intellectual, but imply essentially feeling and readiness to action.] Besprechungen. [Hellpach on Marbe's *Fortschritte* and Külpe's *Psychologie und Medizin.*] Literaturbericht.—Bd. lxv., Heft 1 und 2. **E. Bleuler.** 'Zur Theorie der Sekundärempfindungen.' [Secondary sensations (such as appear in coloured hearing) do not depend upon childhood associations. All persons possess them in some degree; every one, *e.g.*, finds low tones 'large' and high tones 'small'; but they do not in all cases come to clear consciousness. Since they are original and not derivative, we may suppose that the sensory cortex responds to a given stimulus by a number of specific sensations, some one of which dominates.] **S. Meyer.** 'Die Lehre von den Bewegungsvorstellungen.' [The classical doctrine of 'ideas of movement' and of 'kinæsthetic sensations' must be given up. Our inherited movements are multiplied and refined by trial and error; we thus lay up a stock of memories of motor experiences, and in course of time acquire a technique. An 'action' is a serial exercise of memory; and 'will' is a determinate complex of mental and physical processes, which appears in consciousness only as the organising (*konstellierendes*) factor in ideas (Ach's determination). Motor memory is *unanschaulich*, has no memory images; and the 'motor type' thus stands in sharp contrast to the 'sensory types'.] **K. Groos.** 'Lichterscheinungen bei Erdbeben.' [The phenomena may, at times, be objective; but they may be produced subjectively by sudden jerk of the eyes.] Literaturbericht. Notices.—Bd. lxv., Heft 3. **D. Katz.** 'Über individuelle Verschiedenheiten bei der Auffassung von Figuren: ein kasuistischer Beitrag zur Individualpsychologie.' [Distinguishes a peripheral and a central type in the direct apprehension of optical forms: the former takes the figures as given, the latter tends to interpretation. The observer of the peripheral type is a pronounced 'visualiser'; possibly his attention is less analytic than that of the others. With time, however, he achieves a plasticity which seems to be unattainable by the central type.] **C. M. Giessler.** 'Der Blick des Menschen als Ausdruck seines Seelenlebens.' [Characterises the general and special forms (lingering, wandering), the directions, and the expressive content (empty, vague, concentrated) of human regard: the content depends on the mode of arousal of ideas. The eye is in general an organ of adaptation to distance, and in particular of social accommodation: in man, the high motility of the eye and the variety of facial movement bring the regard into close connexion with thought.] Literaturbericht. Kongress für Aesthetik.

Rivista di Filosofia. Anno v., Fasc. 1, January-March, 1913. **Bernardino Varisco.** 'Cultura e Scetticismo.' [Culture consists in the preservation, utilisation, and continual extension of knowledge. But there is nothing to know outside life, which again involves the perpetual interplay of knowledge and action. The scepticism which throws doubt on knowledge assumes a fixed absolute outside consciousness with which life has no concern, and therefore it leaves culture unaffected. The whole position, it may be observed, goes back in Britain to Alexander Bain.] **Giuseppe Folchieri.** 'Il carattere dell' opera di G. B. Vico.' [Vico's philosophy was determined at starting by its negation of the unhistorical position of Descartes. But the result was the complete fulfilment of Descartes' demands.] **Costanzo Mignone.** 'L'utopia della Critica Letteraria.' [As Imlac convinced Rasselas that it is impossible to be a poet, so this article proves—or attempts to prove—that it is impossible to to be a literary critic, and probably with no more destructive effect.] **Antioco Zucca.** 'La Lotta Morale.' [Written from what would be called at Cambridge the Unanimist point of view. The author pathetically complains that to judge by the Italian philosophical reviews of recent years the most renowned thinkers cannot theorise about the universe without flinging charges of ignorance and imbecility at one another. The impression produced on the present summarist is rather that Italian professors of philosophy form a mutual admiration society.] Bibliografia, etc.—Anno v., Fasc. 2-3, April-August, 1913. **Bernardino Varisco.** 'La filosofia di Schopenhauer.' [Written as an introduction to a forthcoming Italian translation of the pessimist philosopher. No German metaphysician is so easy to understand or so open to attack as Schopenhauer; but neither as exposition or criticism does Varisco's somewhat abrupt, elliptical, and oracular style convey this impression.] **A. Faggi.** 'La genesi storica della logica aristotelica.' [As against the one-sided views put forward by others Faggi maintains that Aristotle's logic was concurrently determined by the demonstrative method of geometry, the dialectic method of public debate, and the inductive method of the new natural sciences.] **Alessandro Padoa.** 'Legittimità ed importanza del metodo introspettivo.' [The introspective method in psychology is valuable as furnishing *data* that other students can test by comparison with their own experience.] **Adriano Filgher.** 'Imagine e sentimento nell'opera d'arte.' [Flaubert is right when he says that the greatest artists imagine without experiencing the passions they portray. As German philosophy used to put it: Art is the identification of object and subject.] **Alessandro Levi.** 'Bibliografia filosofica italiana' (1911). Note critiche, etc.

IX.—NOTES AND CORRESPONDENCE.

MIND ASSOCIATION.

There will be a joint session of the MIND Association, the Aristotelian Society, and the British Psychological Society at Durham, 3rd-6th July, 1914.

The following arrangements have been made :—

Friday, 3rd July.

7.30.—Dinner at Hatfield Hall.

9.0.—Annual Meeting of the MIND Association. President—Prof. F. B. Jevons.

Saturday, 4th July.

10.0.—Symposium arranged by the British Psychological Society—"The Rôle of Repression in Forgetting". Mr. T. H. Pear, Dr. T. W. Mitchell, Dr. A. Wolf, and Prof. T. Loveday.

3.0.—Paper on "Freedom," by Prof. S. Alexander.

8.30. Reception in University College by Rev. Henry Gee, Vice-Chancellor of the University of Durham.

Sunday, 5th July.

3.0.—Symposium arranged by the Aristotelian Society—"The Status of Sense Data". Mr. G. E. Moore, Prof. G. F. Stout, and Prof. G. Dawes Hicks.

Accommodation will be provided for gentlemen in Hatfield Hall, and for ladies in the Women's Hostel, at an inclusive charge of £1 5s. from Friday afternoon until Monday morning. Breakfast will be served at **8.30**, Lunch at **1**, and Dinner at **7.30**.

Members intending to be present are requested to make early application to Dr. H. Wildon Carr, 10 More's Garden, Chelsea, S.W., and in any case before 22nd June.

A Member desiring accommodation for a visitor must make special application, giving name and address.

The papers for discussion will be sent by post on 29th June to those who have made application to Dr. Carr

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The following have joined the MIND Association since the printing of last number :—

Miss H. D. Oakeley, 15 Launceston Place, Kensington, W.

Miss F. R. Shields, 3 Endsleigh Gardens, N.W.

INTERNATIONAL CONGRESS OF PHILOSOPHY.

The preliminary notice of the Congress which is to be held in London from 31st August to 6th September, 1915, is now being issued with the form of application for membership, and can be obtained from the Honorary Secretary, Dr. H. Wildon Carr, More's Garden, Chelsea, London, S.W.

The general sessions are to be devoted to special subjects to be introduced by Symposia on :—

1. The Nature of Mathematical Truth.
2. Life and Matter.
3. Realism.
4. The Philosophy of the Unconscious.
5. Pragmatism.

Presidents have been appointed to the Sections, which are as follows :—

I. General Philosophy and Metaphysics.
President, Prof. G. Dawes Hicks.
II. Theory of Knowledge.
President, Prof. S. Alexander.
III. Logic and Scientific Method.
President, Dr. A. Wolf.
IV. History of Philosophy.
President, Prof. W. R. Sorley.
V. Psychology.
President, Dr. C. S. Myers.
VI. Æsthetics.
President, Prof. Mackenzie.
VII. Moral Philosophy.
President, Prof. J. H. Muirhead.
VIII. Social Philosophy and Philosophy of Law.
President, Prof. Hobhouse.
IX. Philosophy of Religion.
President, Prof. Caldecott.

ANNOUNCEMENT.

A prize of one hundred dollars ($100.00) is offered for the best paper on the "Availability of Pearson's Formulæ for Psychophysics".

The rules for the solution of this problem have been formulated in general terms by William Brown. It is now required (1) to make their formulation specific, and (2) to show how they work out in actual practice. This means that the writer must show the steps to be taken, in the treatment of a complete set of data (*Vollreihe*), for the attainment in every case of a definite result. The calculations should be arranged with a view to practical application, *i.e.*, so that the amount of computation is reduced to a minimum. If the labour of computation can be reduced by new tables, this fact should be pointed out.

The paper must contain samples of numerical calculation ; but it is not necessary that the writer have experimental data of his own. In default of new data, those of F. M. Urban's experiments on lifted weights (all seven observers) or those of H. Keller's acoumetrical experiments (all results of one observer in both time-orders) are to be used.

Papers in competition for this prize will be received, not later than 31st December, 1914, by Prof. E. B. Titchener, Cornell Heights, Ithaca,

N.Y., U.S.A. Such papers are to be marked only with a motto, and are to be accompanied by a sealed envelope, marked with the same motto, and containing the name and address of the writer. The prize will be awarded by a committee consisting of Professors William Brown, E. B. Titchener, and F. M. Urban.

The committee will make known the name of the successful competitor on 1st July, 1915. The unsuccessful papers, with the corresponding envelopes, will be destroyed (unless called for by their authors) six months after the publication of the award.

CORRESPONDENCE.

DEAR SIR,—

It is more important to know what is the nature of scientific reasoning, and of Aristotle's theory of it, than what it is at present thought to be by the bulk of Oxford philosophical teachers; but a statement concerning the latter question by Dr. Schiller on the first page of MIND would naturally carry so much weight with those who read it, that I venture to send this note. Dr. Schiller says that "it has become a custom (having the force of law) in Oxford to restrict the study of Aristotelian Logic almost wholly to the *Posterior Analytics*, and to profess boundless admiration for this section of the *Organon*, on the ground that in it is laid down the theory of science on every subject for all time". I think he inadvertently misleads his readers. I remember Mr. C. Cannan a good many years ago, when he was the chief lecturer in Oxford on Aristotelian Logic, explaining to me the importance of the *Topics* in Aristotle's theory of scientific reasoning. I attended a few years since an admirable course of lectures on the subject by Prof. Cook Wilson, in which he criticised very lucidly and severely Aristotle's conception of demonstration, and utilised not only other treatises of the *Organon*, but the *de Anima*, the *Physics* and the *Metaphysics*. Similar criticisms occur in Prof. Cook Wilson's general course of lectures on Logic, which is the most influential teaching on Logic now given in Oxford; and I have discussed these matters with many teachers, and while I do not remember any one to have expressed the opinion which Dr. Schiller says is customary, I have often heard well-grounded criticisms of Aristotle's doctrines in the *Posterior Analytics* and elsewhere. I must not of course be understood to mean that the critics did not also appreciate the merits of that treatise.

Yours faithfully,

H. W. B. JOSEPH.

I am extremely sorry that the introductory sentence of my paper on "Aristotle's Refutation of 'Aristotelian' Logic," in No. 89, should have conveyed to Mr. Joseph any disparagement of the well-known Aristotelian scholarship of Oxford philosophy in general and of his own valuable contributions thereto in particular. But such an intention was so far from my thoughts that I cordially agreed with the important contention of his *Logic* (p. v-vi) that the 'corrupt tradition' of formal logic may be reformed by a return to Aristotle, and indeed had conceived my own article very much in the same spirit. What I was deploring (as an apologia for a somewhat detailed excursus into an obscure point of Aristotelian doctrine) was really that the exigencies of an overcrowded curriculum render it necessary, for teaching purposes, to lay selective emphasis on what are judged to be the most important doctrines

in Aristotelian logic, and that these consequently must inevitably assume greater prominence than they could have had in Aristotle's own mind. It must be remembered that Aristotle was far less of a specialist, and enjoyed a far more varied experience, both of science and of life, than falls to the lot of most of his modern students. Among the doctrines thus thrown into relief the Aristotelian theory of demonstration justly stands out, and I do not find anything in Mr. Joseph's explanations that really traverses the view that it unduly dominates our teaching. At any rate the prevalence of intuitionism in logic seems directly referable to it, and Mr. Joseph would hardly deny that the ideal of proof advocated in his own *Logic* is inspired by it. If he has, since 1906, changed his views on this point. the readers of MIND would, I am sure, be far more interested to hear him on it, or even on the substance of my argument, than on the single sentence to which he restricts his comments.

F. C. S. SCHILLER.

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY

I.—THE PHILOSOPHICAL ASPECT OF FREUD'S THEORY OF DREAM INTERPRETATION.

By H. Wildon Carr.

The dream is at the present time the subject of investigation by a school of psychologists who find in it a revelation of the structure of the mental life, a means of discovering the nature of mental disorder, and a key to the treatment of such disorder psychologically. The theory and method of this investigation has received the name of psychoanalysis and the chief exponent of it is Dr. Sigmund Freud, Professor in the University of Vienna, whose *Traumdeutung* has recently been translated into English. My purpose is not to discuss this method of psychoanalysis, nor to illustrate its application, nor to attempt to estimate its therapeutic value in ministering to a mind diseased, but to try and put in clear terms the scheme or diagram of the mental life, the organic structure of the mind or soul, which is the basis of this interpretation of the dream. It is extremely difficult to get a clear notion of this scheme, because Freud's book is overladen with minute detail of individual analysis of particular dreams and also because his theory of the psychical reality is couched in metaphorical and sometimes very vague terminology. Indeed it seems as though with his incessant allusion to a censor with a black pencil, to a dramatisation of memory images, and to the efforts of ideas to illude this censor, that he is himself unable to escape the kind of dream imagery with which he deals. But notwithstanding all the drawbacks it seems to me that his analysis of the dream indicates facts in the mental life that are of the very first importance for a constructive theory of the nature of life and consciousness.

I am not interested in dreams, either my own or other peoples', as actual occurences. I have never taken the trouble or had the inclination to write down a dream, much less to endeavour to analyse it in the manner illustrated by Freud. All that I am concerned with therefore is the general nature of dreams and their character as psychical realities, and not with the content of particular dreams and what they reveal of the life history of the individual.

There are certain features or characteristics of dreams that we recognise at once. First of all, in normal experience dreams occur during sleep and are more or less imperfectly recollected after waking. Sleep is a physiological condition of the bodily organism, the main conditions of which seem to be that in some way, perhaps by reason of some natural position of the body, the nervous system is relieved from its ordinary function at both terminals. The nervous system is sensorimotor, it receives impressions on sense organs at one end and it initiates movements at the other. Both these functions are in abeyance during sleep—we feel nothing and we do nothing. If, then, we dream while we sleep, our dream consciousness is not originated by influences reaching us through the sense organs, nor does it issue in muscular movements. Sometimes dream consciousness becomes powerful enough to affect the sense organs and the dream thoughts may then begin to initiate muscular movements, but in normal life the moment they do so we awake and the dream is gone.

The second thing about the dream is that it is associated with a disturbed or unhealthy condition of the body. Some suppose that we dream continually during sleep, but if we do so in normal and healthy conditions we are not conscious when we awake of what we have been dreaming, or, if we do retain a recollection, it rapidly fades away. On the other hand in disturbed conditions of the organism, particularly in derangements of the digestive tract, and probably in derangements of the sexual organs, dreams are vivid, may be horrible, and are always accompanied by more or less discomfort and weariness.

A third feature of the dream is the absurdity or incongruity of its content. If we analyse a dream by recalling it carefully as we wake up we can usually trace its origin to some recent circumstances in our experience, but these are always in the dream marked by a certain topsy-turveydom. The dream never repeats a past experience just as it happened, nor does it ever construct an experience just as it would happen in waking life. All its materials or contents are

drawn from experience, yet all, to the minutest detail, undergo transformation or deformation.

A fourth important feature of the dream is its apparent relation to insanity. An insane person seems to continue the dream into waking life, to have a consciousness which is more or less completely a dream consciousness. Whereas in all normal and healthy conditions there is a sharp distinction between the dream state and the waking state, in insanity the bodily activity appears to be accompanied by the deformation of reality that characterises dream consciousness.

The ordinary theory of the dream is that its deformation of reality is negative, a disordered riot of the imagination caused by activity in the brain cells when cut off or inhibited from their normal function during that condition of the organism which is produced by the physiological process of sleep. But a very slight examination of the facts will show that such a theory is wholly insufficient. If it were so, if the dream were the result of a partial activity of processes concerned in consciousness, if it were merely that the co-ordination of memory images was haphazard instead of being correlated with perception and movement, we should expect the dream consciousness to have a very different character from that which it has. We should expect it indeed to be fragmentary, disconnected and discontinuous, but we should also expect it to be true, that is to agree with waking consciousness as far as it went; we should expect a dream memory to represent a memory image as faithfully as an ordinary normal recollection, at least it would be surprising if it did not sometimes do so; we should expect the content of the dream to be a spontaneous revival of what we call into the present consciousness when we exercise our memory in reverie, or in day dreaming. But the very reverse is the case. The scene that enacts itself in the dream is never the simple reproduction of past experience nor is it ever a reconstruction of past experience. The persons who play a part in our dream are never true memory images of real persons, they are always incongruous, although in our dream consciousness we are never surprised at incongruity. It is when we awake that we are surprised or horrified or disgusted at the grotesque shape which our friends have assumed, or the strange words they have uttered, or the unusual deeds they have done. It is the fact that a dream is not mechanical, not a patchwork arrangement of real recollections, but something that exhibits a peculiar and definite structure, that leads to the conclusion that the dream can only be explained as a special psychical process.

This is the basis of Freud's theory. There is a psychical process at work in the dream, or manifested in it, which is distinguishable from the psychical process of waking consciousness. This process can only be explained by psychoanalysis. In Freud's view the dream is a psychical act. Its nature is wish fulfilment. Dreams are repressed or suppressed wishes seeking fulfilment. To appreciate his theory and to understand its application to the phenomena of the dream we must first understand how he conceives the actual structure of the psychical life. Whatever be the nature of psychical reality it is clear that wherever there is conscious activity there is perception and responsive movement. The movement may be incipient only, it may be arrested or inhibited, but the type of psychical process is perception consequent on external stimulation, and responsive action consequent on perception. But the real content of psychical activity is memory. Perception is instantaneous and dies as it is born, it is retained and preserved in memory. Memory is the stuff or material of psychical existence. This doctrine has received the most lucid exposition in the writings of Bergson. "All that we have felt, thought and willed from our earliest infancy is there, leaning over the present which is about to join it, pressing against the portals of consciousness that would fain leave it outside".[1] Memory exists in two forms, which we may distinguish as recognition and as repetition. The one is pure memory, the record of a past which is fixed, which can never be repeated, which happened once and can never happen again; the other is a motor habit which plays the past over again in the present. One of the arguments which Bergson has used for this existence of a pure memory which registers in all its completeness our past experience is the fact of the revival of forgotten memories in dreams. "In certain dreams and in certain somnambulistic states memories which we believed abolished reappear with striking completeness; we live over again, in all their detail, forgotten scenes of childhood; we speak languages which we no longer remember to have learnt".[2] But it is an entirely different aspect of the dream than its recall of the forgotten past which Freud has tried to under-

[1] *Creative Evolution*, p. 5.

[2] *Matter and Memory*, p. 200. At the time of writing this paper I had not seen the recently published little book by Bergson on Dreams (B. W. Huebsch, New York, 1914). It is the translation of a lecture delivered in 1901 and in it he mentions the work of Freud, and his substantial agreement with many parts of his theory.

stand. His problem is the nature and reason of the systematic deformation which characterises the dream, and his theory attempts to give its ground. Consequently he sees in pure memory not merely the faithful register of the whole of the past but a still active psychical agency. Wishes repressed and relegated to unconsciousness are not dead imagery but actively living psychical facts which struggle, not against a mechanical and automatic impediment, but against a psychical force that holds them in restraint and which can be avoided or deceived. This is the force he names the censor and he conceives the psychic life as controlled by it. He adopts the imagery of the stage. Feelings, thoughts, wishes arise and have arisen from earliest infancy, pressing forward to play their part on the stage of consciousness, but thwarted, repulsed, held back, pressed into the unconscious by a power that acts as an individual controller.

There are accordingly in Freud's scheme three main divisions or regions of psychical life. There is first consciousness, distinguished as attention to present activity, to action in progress. Secondly, there is foreconsciousness (I have adopted throughout this paper the terminology of the English translation), the present existing field of awareness, the material of which, though not actually in consciousness, can be called up at will. It is the whole content of experience that is at our disposal and ready to be drawn upon as occasion requires. Below this there is the unconscious, which consists of active elements of our life that exist but cannot manifest themselves. It is between these unconscious and foreconscious regions that the censorship is active. And the theory of the dream is that during sleep the censorship is partially relaxed so that wishes from the unconscious get through to consciousness, but they do so only by undergoing deformation, by clothing themselves as it were with the forms they meet with in the foreconscious. So that in the dream we have wishes that have been repressed, it may be in early infancy, passing the censor and managing to play a part tricked out in the disguise of recent experience.

So stated the theory may sound fantastic, but it merits very serious examination for the following reasons. First it draws attention to profound problems in the psychology of memory. Secondly it conceives the order which characterises normal healthy life as not a passive and negative order but an order imposed by an active psychic agency which is selective. Thirdly it points to the nature of mental disorder and may therefore have immense practical importance.

Let us now turn to the theory itself. The dream is a

psychic act. Whatever the physical or physiological conditions are that accompany, or are the occasion of, this psychic act, its existence and meaning are not to be explained by these conditions. It is not a physical or physiological reality but a psychical or psychological reality. The dream is not a bodily act nor a meaningless act, it is a psychical act whose meaning must be traced out in the association of ideas. Every form that it assumes, every element that enters into its constitution, has its reason or ground in a psychical antecedent. It is very important to understand clearly what is implied in this distinction between physical and psychical reality. The distinction seems to me unnecessarily confused when terms like force and energy are used indifferently to describe any kind of activity physical or psychical. It is hopeless perhaps to expect that those who make frequent use of the word force will clearly define what they mean by it, but ambiguity in the term energy is inexcusable for the term has a strict and technical application. The doctrine of energy (its convertibility and degradation, the conception of entropy, etc.), is so essential a part of the scientific conception of physical reality that its use to denote mental activity is only justifiable if the intention is to assert the identity of mental and physical activity, identity in the sense of interchangeableness. The most extreme interactionist would, I imagine, hesitate to assert this. Energy in physical science is the conception of something that is measurable, something that undergoes change of form with quantitative identity. To apply such a conception to mental activity literally is plainly impossible and to apply it metaphorically is only confusing. In what sense, for instance, is the memory that forms part of my subconscious psychical life a latent energy and what is this energy converted into when some association brings it to consciousness? Whether physical reality is ultimately a form of psychical reality is another question, what is clear is that the reality we study in psychics is a reality of a different order to the reality we study in physics. The whole point of Freud's theory is that the dream pertains to this psychical order.

How does the dream consciousness differ from the waking consciousness? It takes its origin in a lower stratum of psychical reality than that to which the waking consciousness can penetrate, and it finds expression by clothing itself or even by disguising itself in the stratum of psychical reality upon which the waking consciousness draws. These two strata of psychical reality Freud names respectively the unconscious and the foreconscious. Between these two strata of the

psychical life there is a control. This he names the censor, or sometimes impersonally, the censure or the censorship. It is this control that constitutes the order and rationality of the character of intelligently ordered conscious existence.

The type of ordinary conscious experience is a process, at one end of which is perception, and at the other, movement. Between these two terminals when the activity is not reflex or automatic but conscious and voluntary there is memory. At the perceptive end the organism is in relation with the environment, receiving stimulation from external influences resulting in internal sensations. But at this perceptive end there is also another process continuous and persistent throughout the whole psychical life, a process which goes on unconsciously and without effort—the formation of memory. In actual experience no perception is pure, in theory it arises and perishes as the moment during which it exists arises and perishes, but in fact it continues to exist in memory. We are accustomed to think of memory as a kind of inscription on a register. Perceptions seem to leave an impression or trace of themselves behind them and this register seems to be open to our inspection and the effort we are conscious of in trying to remember the past is like the unrolling of a scroll in which that past lies written out in the order and with the circumstances of its occurrence. At all events we picture to ourselves the preservation of the past in memory as a purely passive or receptive process by which the experience that actually takes place leaves a trace or record of itself as a memory image. The psychical reality of our life seems indeed composed of this record of the past which remains at the service of our present activity to guide, enlighten and interpret the present. Freud conceives this memory quite differently, for him it is not composed of the dead pictures or traces of an actual past but of all the active elements of our nature which retain their activity undiminished, and are always present and acting, but held in control. Every feeling, thought or desire, every conscious or unconscious wish, survives and forms part of our psychical nature.

What is the nature of this control? It is a familiar fact of experience that there are thoughts, feelings and desires to which we do not give expression and which we vigorously repress if they assert themselves in our ordinary intercourse. Some of these we regard as harmless enough in themselves but the indulgence or intrusion of them in consciousness causes a feeling of shame, and there are others of which we even stand in fear, which it is our very nature to repress

and the formal habit of continual repression of which is our character itself. It is also a common enough fact of experience that when by reason of a sudden shock or unexpected pain we are taken off our guard, our feelings find vent in expressions which are quite involuntary and which are not only not habitual but surprise us in their unnatural strangeness. Freud supposes that a control is part of the psychical reality of every conscious being, it is a control that is not conscious and voluntary, but essential and natural to psychical life. It is conceived as a necessary part of a psychical existence or rather of a psychical individuality. It operates by selection, but the choice it exercises is not merely passive, and it is not a selection of what shall or shall not find conscious expression, but a selection of what shall and what shall not pass into the region of foreconscious experience upon which consciousness draws. It selects what shall and what shall not form the background of our voluntary activity. What it rejects it does not simply exclude, it suppresses it in the unconscious. While the control is maintained, as it is in all sane, normal and healthy conditions of the consciousness, these active elements of our psychical nature or suppressed wishes cannot emerge into consciousness nor can consciousness penetrate to them.

There is another fact of common experience that is significant in this connexion. Consciousness of anything in the sense of actual present awareness is directly continuous with unconsciousness. We never know how much of the content of our awareness is actual present experience and how much is inferred from what is present. Only a part of what at any moment we perceive or remember is at that moment actually in consciousness. Consciousness seems to throw light on whatever is the object of our attention, but there is always a choice of what we will attend to, and this is a choice among things that, though we are actually unconscious of them, are in a sense within our consciousness. A slight bodily movement will alter the whole content of present perception, and an association of ideas will bring into consciousness whole realms of memory. So much is this the case that no one without very careful analysis could say what does and what does not form part of consciousness at any present moment. It is a familiar police-court difficulty in appreciating evidence, that people firmly believe they have seen what they know was there to be seen. The consciousness then that accompanies each moment of actual experience is a moving focus, a centre without any sharply defined circumference, and surrounding this focus is what

can only be described as a consciousness of which we are unconscious. The paradox is only apparent, we cannot call it the unconscious, for we can bring it into consciousness. Freud names this the foreconscious.

Another fact is also quite clear, the foreconscious does not exhaust the whole of our nature. There are actions that we cannot trace to any conscious experience, actions that we call instinctive, just because they seem to have their origin in a nature formed before conscious experience began and unaffected by conscious experience. They are what we sometimes call the natural man. They are the basis of our human nature on which conscious experience has been superposed. They lie in a region distinguished from the foreconscious as the unconscious.

We may now understand Freud's scheme. The type of psychical reality is the wish. Our fundamental psychical nature consists of wishes which seek fulfilment. Their only means of obtaining fulfilment is by using the bodily organism. Our rational nature consists in a control of wishes and this is affected by a selection. A strong control is maintained from early life, a control which grows in strength as individual character develops and the effect of which is to cut off wishes from fulfilment by preventing them from entering the region of perception and memory and so becoming the conscious ends of action.

The notion of reason as controlling our lower nature is familiar enough, but the distinctive feature of Freud's doctrine is the place in the psychical life which he assigns to this control. It is not exercised by what we ordinarily call the reasoning faculty, the power of discursive thought, the understanding that arranges reality in concepts; it is placed by Freud below and not above the intellectual life. It regulates the selection of the material with which the rational or conscious life deals. Just as the sense organs may be said to select the influences which reach the brain and are perceived, so this "censor" selects among the desires, conations and wishes that are the active elements of living experience those that shall enter the foreconscious in which they seek fulfilment. Consequently not only are our sense impressions and our memory a selection, but the wishes that embody themselves in action are a selection also. The foreconscious has not only a vast physical reality of spatial and temporal elements excluded from it, but also a vast psychical reality of personal wishes which can be repressed but not destroyed, they continue to exist but are ineffective because they are relegated by the censor to the

unconscious. This unconscious is not a part of our experience which we have forgotten but can by association revive,—the action of the censor is to place it beyond recall. It can only reach consciousness through the foreconscious and there it must undergo change. The foreconscious is the last memory system at the motor end of the psychical apparatus. Exciting processes within it reach consciousness without further detention whenever the conditions of attention are fulfilled. Such is the general scheme or diagram of the psychical life that Freud adopts as the basis of his theory of the nature and interpretation of the dream.

What then is the dream? It is an unfulfilled wish that owing to its character has been suppressed by the "censor" and is therefore unable to reach the higher levels of consciousness, but availing itself of the partial suspension of "psychic censorship" during sleep it is able by means of certain mechanisms of distortion to come to a kind of consciousness and effect a kind of fulfilment. The mechanisms of distortion that Freud distinguishes are four. The first is that which brings about the displacement that is a familiar feature of dreams. In the dream material one idea is substituted for another, one word for another, the substitution is always linked with or depends upon some association. The second is condensation. Incompatible material is compressed together in the dream into one intense presentation. The third is dramatisation. This is the expression of the dream material in the form of mental pictures of acted reality. The fourth is elaboration, the elaboration of a rational and intelligible exterior in the dream structure. Psychoanalysis, the method of dream interpretation, consists in discovering the latent content, the real wish, beneath the dream thoughts which make it objective and represent it as a scene which we believe we experience. The pronounced characters of the dream are its representation as a present situation and the transformation of thought into visual pictures and speech. These are what constitute the regressive character of the dream as compared with normal waking experience. The direction of the activity is from thought to sense perception, and not as in waking life from sense perception to thought.

I will now put forward some general considerations which concern the philosophical rather than the psychological interest of this theory. The idea that our healthy normal waking experience depends on the active exercise of a censorship seems to me to throw valuable light on the facts of conscious experience. Our character not only as social

and moral beings in relation to one another, but as natural living creatures with a clearly defined zone of activity, consists in the selection exercised by our nature over the multitudinous psychical elements which seek expression in us. This nature is a psychical activity which marks out the direction of our life, forms our social relations and organises our animality into rational conduct. In Freud's analysis of dreams the original source of the dream, the wish that has made good its escape from the unconscious is almost always discovered to be sexual, and this has been much criticised. Sexuality is but a small part of our whole nature, in healthy waking life it does not stand out as an interest or relation of prime importance, why should it preponderate to so disproportionate an extent in the dream life? Why again, if it does, should it be necessary to disguise it so completely in the dream that only careful psychoanalysis reveals it? But is not this just what we should expect if Freud's theory of the censorship is true? Our sexual nature and the desires and strivings and tendencies that have their origin in it are, it is true, only a part, and not perhaps the most considerable part of our nature, but it is the exercise of the censorship over this part of our nature that has produced the type of our social organisation. The *libido*, the longing or lusting that is repressed by the censorship into unconsciousness is largely composed of sexual desire just because in the evolution of human nature, for some vital reason no doubt, the instinct to repress this instinct has been evolved. Repression of sex instinct is the type of our social character, a type which does not seem to belong to any other animal species, so far as we know, and it might have been otherwise with us. If for example the instinct common in some of the carnivora to eat only in solitude had been developed in us, the censorship would have formed in us a social convention which would have regarded the taking of food as disgusting, and the sociality of meals would have been non-existent. We should have had to recognise the need of food, but it would have been good manners to have pretended that we had no desire for it. We have a striking instance of what seems to be the exactly opposite instinct to our own in the animal man has chosen as his companion and taught to share his life. The dog is naturally unsocial at meals. It has a disinclination to be overlooked at its feeding whether by man or by its fellows, whereas natural functions that are disgusting to us are to it the bond of sociality. Again consider the experience we call falling in love, it arises from natural physiological processes and has

its ground in the performance of organic functions, yet it is a well-known psychological fact that the feeling of being in love cannot tolerate the thought of the sexual act and is offended by the expression of anything sensual in the love relation either in word or thought. Freud's theory of the censorship throws great light on these facts of our nature and shows that though the repression of our sexual instincts is a convention, it is not, as is so often supposed, a purely artificial convention, but one that has arisen in the evolution of our psychical nature.

But I find a difficulty in the description of the dream material as wishes, and of the dream itself as wish fulfilment. A wish is not a vague desire, it is not a conation, it is not a tendency, it is all these but it is something more, it is a definitely formed desire with a particular embodiment. So Freud understands it, and in his analysis he finds the motive power of a dream in an embodied wish, a hatred of or love of some particular individual, or a longing for some particular gratification, that may have occurred years before, even in infancy, indeed perhaps before infancy. The *libido* has not merely a general nature of conation but is formed of wishes as particular as the definite aims and purposes of our waking life. It is not a merely verbal question, it is a question of fact and it is to fact that Freud makes appeal. Perhaps it will be said that as the facts are elicited by psychoanalysis only those who actually undertake this work are qualified to judge of the proof of the theory. But I demur. I think there is an *a priori* objection to the possibility of proving the theory by such facts alone as this method can elicit, quite apart from the amount of evidence that would be required to carry conviction. Let me explain by an example of the kind of interpretation that is offered of a dream. A patient, let us suppose, sees in his dream a person above the ordinary stature who is addressed by the strange and unfamiliar name Yram. The analyst finds out that this person in early childhood had a nurse called Mary. I am not taking an actual case, only endeavouring to get a simple example of the type of interpretation, no caricature is intended. If the analyst is satisfied that the fact of childhood is the ground of the dream he sees in the tallness of the dream person the circumstance that the child was little and in the name an obvious expedient to disguise identity. Now what sort of evidence would be required to bring conviction that the dream is a repressed wish of childhood now, after years of unconscious existence, gaining fulfilment? No accumulation of facts of what happened in infancy would bring conviction to any one who had

not already formed the theory, because it seems at once evident that we could find in childhood as many such facts as we chose to look for. What however seems to me in the highest degree incredible and fantastic is to suppose that the unconscious consists of wishes, which are not only particular, in the sense that they have existed in actual experience, but are individual and have preserved in the unconscious their original setting. I understand the censor repressing a conation and so preventing it taking form and embodying itself in a definite wish, but I recognise nothing in my experience that leads me to suppose that my consciously formed but unfulfilled wishes are forced back and repressed in unconsciousness.

A still greater difficulty meets me in Freud's idea of wish fulfilment. There seems to me to be a confusion between what I should distinguish as wish indulgence and wish fulfilment. When a wish is fulfilled there is an end of it so far as it is a wish, equally there is an end of it if circumstances render its fulfilment impossible. In what sense then is the emergence of a long-suppressed wish in a dream, supposing that this is what takes place, a fulfilment of the wish? Does its activity there and then end? Is the wish now satisfied? If the wish was my longing for the nurse of my infancy, can it be said to be possible of fulfilment when I am no longer an infant and have no nurse?

I suggest that as a doctrine of psychical activity, Freud's theory is profoundly suggestive, but it requires complete restatement. The distinction between the unconscious and the foreconscious cannot, it seems to me, be a difference between memories that can be recalled and memories that cannot, it does not lie in a selection of memories. The whole of experience, in so far as by experience we mean whatever has been the object of attentive consciousness or distinct awareness, is preserved in memory. I hold that all of this forms what Freud calls the foreconscious, what others call the subconscious, no part of it is prevented coming to consciousness as memory by the censor. But this attentive consciousness is itself determined by a selection from a larger psychical reality and it is this selection that is worked by the censor. It consists in resistance to conations that are striving to express themselves in wishes.

The theory interpreted literally would make the unconscious consist of what had originally been conscious experience, of what had shaped itself into distinctly conceived ideas and images and purposes, in fact of exactly the same material as that which composes the foreconscious, and the work of

the censor a repression and resistance which, so long as it remained active, would render the suppressed memories incapable of recall. According to the theory I am unconscious of memories suppressed by the censor, not in the sense that they are not in the focus of attention, this is the unconsciousness of the foreconscious, but in the absolute sense that they are placed beyond my power of recall. If this were so it seems to me that loss of memory and symptoms known as maladies of memory would be normal and not abnormal conditions. Speaking as an ordinary individual and appealing to common experience I challenge the fact that it is possible, or that there is within us any psychical control that will enable us, to suppress the memory of an experience that has actually formed part of our consciousness. We have undoubtedly the power of diverting our attention, and in doing so of avoiding the eruption into present consciousness of distressing or unpleasant memories. Undoubtedly also we can develop habits designed to exclude troublesome conation, but that we have an absolute power of forgetting seems to me entirely at variance with fact. Stating this objection in the terms of the theory I should say that in my view the censorship is a reality, that it lies below conscious experience, that it divides the foreconscious from the unconscious, but that it is not exercised over anything that has once formed part of the foreconscious itself.

II.—HAS GREEN ANSWERED LOCKE?

By Howard V. Knox.

I wish in this paper to bring forward certain considerations supplementary to those set forth in my article on 'Green's Refutation of Empiricism' in Mind, January, 1900 (N. S., 33). But first I must briefly explain why I still regard the subject as important. The subject has more than historical importance, because Green, half-unconsciously, has brought to light, better than any other rationalist, the nature of the fundamental divergence between Empiricism and Rationalism. And though his criticism of Empiricism is no longer openly and confidently appealed to as furnishing a conclusive and final refutation thereof, rationalists have not so far been able to produce anything more convincing in the way of an answer to Hume or even an answer to Locke.

I.

What Rationalism stands for is the conception of Knowledge as an ideally complete system—*i.e.*, as completely systematic and absolutely all-inclusive. Absolute or Objective Idealism, as a special form of rationalism, simply consists in pointing out that the realisation of this ideal is, or would be, indistinguishable from Reality itself. This result it calls the 'identification' of Knowledge and Reality.

But, as Green was the first openly to acknowledge, this Knowledge that is 'identical' with Reality is not and never can be simply identical with *human* knowledge. On the other hand, the identification between Knowledge *simpliciter* and Reality is, in Objective Idealism, so complete, that anything which is *not* identical with Reality ceases to deserve the name of Knowledge. Thus, from the point of view of absolute knowledge, human knowledge simply *is not* knowledge at all; while from the point of view of human knowledge, absolute knowledge simply is not knowable at all. The result of claiming that really to know is to know and be

everything, is that we are forced to admit that we human beings *really know* nothing. That is how Rationalism proposes to vanquish Scepticism. But is it not rather to swallow Scepticism whole, and to identify oneself with it? But for the difference in name between Absolute Idealism which says it is going to reveal absolute truth, and Absolute Scepticism which says there is no truth at all to be revealed, no one would have suspected that the two doctrines were different.

It is not, however, so much the essentially sceptical nature of Rationalism that I here wish to insist on, as the idealists' admission that their 'Knowledge' in its essential nature is very literally *not ours*. The ideals of Idealism, therefore, whatever aesthetic gratifications they may yield to certain minds, are not very helpful to one who is in earnest with the problems of human knowledge.

What now does *Empiricism* stand for? It stands precisely for a consideration of the relation between Reality and *human* knowledge. That is to say, the problem it *starts with* is the problem which Idealism first ignores and finally despairs of. Its immediate concern being with the knowledge we seem to ourselves to have, and not with a hypothetical knowledge posited as ideally complete, its quest is from the first a quest for the means of detecting error and of *improving* what knowledge we have. As a simple matter of history, this has always been the leading *motif* of Empiricism, which therefore from the outset is of an essentially practical nature. In insisting that we learn by experience, Empiricism, unlike Idealism, leaves room for the correction of our theories by means of *further* experience. Thus the empiricist dislike of dogmatism is, in its positive aspect, the belief in the *progressiveness* of human knowledge. Nowhere are these human motives of Empiricism more obvious than in Locke; and that is one reason why I have chosen the present title for this paper.

Now Locke the protagonist of real religious toleration and of intellectual freedom in general, Locke the sworn foe of meaningless phrases and unreasoned assumptions,[1] never appears in Green's pages at all. The only Locke that is there allowed to show his face for the sake of getting a slap in it, is a pure intellectualist with a particular, and no doubt very faulty, theory of the nature, development and limitations of the human understanding. In other words, Green

[1] *Cf.* Campbell Fraser's *Locke* (in "Phil. Classics for English Readers"), chaps. ii., iii.

ignores Locke's humanism and practical aims, and confines himself to criticising his efforts towards providing a *rational basis* for the refusal to dogmatise and to persecute.

But even on this narrow ground Green's attack on Locke is one long *ignoratio elenchi*. Whereas Locke was trying to understand the nature of the human understanding and the way it grew up, it never seems to have occurred to Green that the *human* understanding was a subject worthy of human study and was in fact the title of Locke's study. Instead of starting with Locke's problems, he starts by maintaining that consciousness is inherently timeless, and then discovers that therefore it cannot conceivably be subject to change or improvement. Now this at once rules out the *human* consciousness with its progressive changes; and in the end Green himself seems to perceive this. For he not only admits, but even prides himself on the fact that the consciousness which he has been investigating is absolutely different from the human consciousness of Locke's inquiry. Consciousness *sub specie æternitatis* and consciousness *sub specie temporis* cannot, he expressly contends, "be comprehended in a single conception."[1] But does not the fact that Green thus avowedly leaves it an open question *how* the Eternal Consciousness is related and relevant to the human, avow the irrelevance of his own conclusion to the position he professes to have refuted?

II.

Strictly speaking then, our question, "Has Green answered Locke?" is emphatically answered in the negative by Green himself. Now, when a man hurls his own lucubrations into the waste-paper basket in this way, it does at first sight seem hardly worth while to pick them out and subject them to minute criticism. Nevertheless in the present state of philosophy this is precisely what we are compelled to do. For the Cimmerian darkness, in which Green's philosophy ends, still does duty in idealistic writings for philosophic enlightenment. Modern Idealism still professes to refute modern Empiricism by maintaining that the objects of their several inquiries are absolutely distinct. The 'system' of Idealism can never rid itself of this confusion, for the confusion *is* the system.

And just because the confusion comes so clearly to light in Green, Green is really less confused that his successors.

[1] *Prolegomena to Ethics*, p. 73.

If he himself has nothing definite to say, he has at least the merit of enabling us to lay our finger definitely on the source of the confusion. The fundamental divergence in technical doctrine between Empiricism and Idealism takes place, as Green's example unmistakably shows, on the question of *the relation of thought to time*. Empiricism, which is frankly concerned with human thought and human problems, quite simply takes thought as essentially progressive and therefore as being in time. Idealism on the other hand takes thought as essentially 'timeless'; and only when pressed admits that this applies exclusively to that impersonal mind—if mind it can be called—to which it gives the name of the Absolute.

Now, as a condition of maintaining their intellectual existence, and of persuading people that philosophy is a fit subject for human study and for economic encouragement, idealists obviously must resist the only natural conclusion from their fundamental premises—namely, that the conception of the Absolute is entirely otiose *for the purposes of human knowledge*. Here, then, is where the mind of the idealist gets its chance of displaying its superior subtlety.

The idealist's public profession of faith is: Reality is rational: it is such that it does not contradict itself. But the secret formula for the compounding of idealistic doctrine is this: The absolute difference of A from B in no wise derogates from the essential identity of B with A. The absolute difference is simply the form in which the essential identity manifests itself *to us* under the peculiar limitations of the human intelligence. The immediate application of this convenient formula for the higher synthesis of all contradictories is as follows.

It is *only from the human point of view* that the two alternatives of timelessness and progressiveness really are exclusive, and really appertain to two different kinds of consciousness. Once we have made the distinction between the absolute and the human 'points of view,' we must allow that distinctions which hold good *for us* need not hold good for the Absolute. And this very distinction between ourselves and the Absolute is a case in point. It possesses 'relative truth,' but not Absolute Truth. For the time-process itself is just what constitutes the timeless content of the Absolute Experience. What we feel as effort and incompleteness on this stage of time, the Absolute effortlessly enjoys as one grand harmonious chord from the stalls of Eternity. *We* indeed cannot without alcohol's, or harmless anæsthetic's artful aid see things at once *sub specie temporis* and *sub specie æter-*

nitatis.[1] But what in the normal human mind is self-contradiction, in the Absolute is 'transmuted,' if not exactly into Truth, into something far more resplendent.

At this stage of the proceedings we begin to get some interesting admissions. It is admitted that absolute truth is not only too good for us but is also not good enough for the Absolute. Intellect, which Idealism professed to satisfy, turns out to be the one thing that stands in the way of complete intellectual satisfaction. The Absolute can do a great deal, but, as idealists admit, even through the mouth of its chosen prophets it cannot declare the glory of its final product, nor reveal the secret processes of its transcendental metabolism. It can do everything but make itself intelligible, for just as "to be obvious is to be inartistic," so to be intelligible is to fall below the level of Absolute Reality. When, therefore, we have learned to exchange the ambitions of the intellect for the thrills of mystic awe, we admittedly have learnt everything that an intellectualist philosophy really has to teach.

The Theory of Truth as Absolute Coherence is another name given to this philosophic effort, not by some irresponsible humourist, but by idealists themselves. And really, when once we get fairly started with a radical contrast, which is at the same time an ultimate identity, between the truth or super-truth of the Absolute and what is only true 'from the point of view of the human intelligence'—when once we sympathetically catch the spirit of this great Hegelian Idea, there is no reason why we should stop anywhere or stick at anything. Of the making of books on these lines there need never be any end; and thus the timeless perfection of knowledge is reconciled with the human need for the continual production of literature. Our Hegelian education is completed by the recognition that our very limitations are really a charter of complete intellectual freedom. For now we can talk any inspired nonsense we choose, and lay the blame for its *apparent* incoherence on the limitations inherent in the 'standpoint of the human intelligence'.

In the foregoing I have tried to bring out quite objectively the general nature of the issue between humanistic Empiricism and rationalistic Idealism. As for the epistemology of *modern* Humanism, it is primarily a revolt against the peculiar lengths to which the doctrine of the Relativity of Human Knowledge has been carried by Absolutism. In

[1] Cf. Will. James's *Will to Believe*, pp. 294-298 (Note on a pamphlet entitled, *The Anæsthetic Revelation and the Gist of Philosophy*, by B. P. Blood).

opposition to the principle of relativity as so understood—*i.e.*, as depriving human knowledge of its character as knowledge precisely because it is human—Humanism holds fast to the *progressiveness and human relevance of knowledge*. And first and foremost, as regards technical doctrine, it joins issue with Absolutism on the question whether real progress in knowledge is possible.

The thought which is completely out of time is already rather out of date; but it still possesses sufficient vitality to obstruct efficient thinking. In what follows, therefore, I propose to investigate more minutely the nature and origin of the idealistic fallacy in regard to the relation between change and consciousness. In my former article it was shown that what Green calls the 'timelessness' or 'eternity' of thought—which in any case is a purely formal character, appropriate to error equally with truth—is a misinterpretation of (*a*) the indivisibility of the judgment and (*b*) the continuity of consciousness.[1] But at that time I was unable to explain how Green came to regard an absolute difference between change and consciousness as a satisfactory logical basis for the 'identification' of thought and reality. In fact, the avowed object of that article was to elicit an authoritative explanation of what this 'identity' that idealists speak of really *means*. In this respect the article in question has been, I must sorrowfully admit, a signal failure. But I think I can now throw some feeble light on this difficult question. In the course of our inquiry we shall see that while modern Empiricism *rectifies* Locke and Hume in regard to the relation between change and consciousness, idealists from Kant onwards have separated the true from the false in these writers and held fast to the false.

III.

The gravamen of Green's criticism of Locke, Hume, and the older empiricists generally, is that, in reducing experience to a succession of mutually exclusive 'states of consciousness,' they have failed to explain how consciousness *of the succession* should ever arise. So far he is perfectly right: you cannot get the *experience* of change out of 'a mere series of related events'. Green, however, unhesitatingly assumes that this is exactly equivalent to saying that "there is an absolute difference between change and the intelligent consciousness or knowledge of change, which precludes us from tracing

[1] MIND, N.S., 33, pp. 72-74.

any development of the one into the other".[1] Whereas all we need admit is this: that 'a mere series of related events'[2] *means* 'a transition from A to B in which the transition itself is not experienced'. I propose to show, in the first place, that the above assumption, which deserves to be called *par excellence* Green's Fallacy, destroys not merely empiricism, but experience as a process; and not merely the historical treatment of thought, but the historical method as such. No subtle reasoning is needed to establish this result: it stares us in the face.

For what is the *modus operandi* of that 'spiritual principle' by means of which Green thought at once to explain the 'possibility of experience,' and to silence empiricism for ever? Green's theory is that a consciousness of a successive series is only possible in virtue of a 'timeless' principle of unity which by its relating activity holds together the successive moments, and *in so doing neutralises and in fact destroys their successive character.* In other words, Green's 'spiritual principle,'—which is Kant's synthetic unity of apperception in a theological dress—has for its sole function to overcome time and to negate change.

Green is as explicit on this point as it is possible to be. "The objects," he says, "between which a relation subsists, even a relation of succession, are, just so far as related, not successive."[3] And indeed, since Green holds that thought and its object are 'identical,'[4] while at the same time he regards thought as essentially 'timeless,'[5] he is logically compelled to conclude both that 'thought' is unprogressive and that whatever object is thought of must be timeless too.

So much seems, by comparison, quite clear and simple. Thought cannot really have a history, for history is really unthinkable. And the more closely we consider the involved arguments by which this conclusion is reached, the

[1] *Prolegomena to Ethics*, p. 88.

[2] I abstain from pressing the point that in representing "a mere series of related events" (see *e.g. op. cit.*, p. 20) as absolutely different from "the consciousness of the series as related," Green, for his part, admits that relations do *not* necessarily owe their existence to conceptual synthesis.

[3] *Prolegomena to Ethics*, p. 34. Of course idealists will say that Green cannot really have meant what he said. To which the only possible answer is, Did he really mean anything? I have tried, in the text, to credit him with a sort of meaning; but I admit that this is a difficult and risky proceeding, and I may have been over-sanguine.

[4] *Cf. e.g. op. cit.* sect. 58.

[5] *Cf. op. cit.* sect. 57.

more impossible it seems to get any meaning out of them except on the same terms. For Green always begins by arguing that between 'a process of change' and 'any consciousness of change' there is no 'element of identity' or 'community'. At the same time, he is equally positive that to ensure the 'possibility of knowledge,' knowledge and real being must be identical. We cannot, he argues, be conscious *of* what is not contained in consciousness itself. If, therefore, knowledge of nature is to be possible, and if these two 'absolutely different' things, change and consciousness, are to coalesce, one of them, plainly, must part with its intrinsic character. It is, as I now perceive, the omission from his explicit argument of this obviously necessary link that makes the argument so extraordinarily difficult to follow, and that has obscured, apparently even from Green himself, the real meaning (if we can call it so) of his conclusion. Under cover of this omission, however, Green is now able quietly to *assume* that, of the two incompatibles, change must be the one to give up the ghost: in the moment of becoming an object of 'knowledge,' change becomes the exact opposite of what it really is in itself.

Green, then, has neither vindicated the reality of knowledge nor explained the reality of change. While pretending to explain change as an object of experience, *he has really sacrificed it to the supposed need for a static 'unity'*. And since he is apparently unaware of having slain the empirical reality of change, he does not even attempt to explain either (1) how change as a thing in itself should so successfully elude the grasp of thought, or (2) how, if after all it is really an illusion, the illusion of it should arise in our minds. Thus change, whether as experience, as 'objective reality,' or as mere idea, remains in the end as unintelligible and as impossible for him as for the empiricists he so severely condemns for the like shortcomings. And, as has been already suggested, this catastrophe is the direct and inevitable result of Green's initial assumptions. A 'timeless' idea can no more generate the change-experience than can a mere series of feelings. Nor, if pure thought with its icy breath congeals the stream of consciousness, can it be the consciousness of the stream as flowing.

IV.

Small wonder, then, that modern Idealism, which began its career by proclaiming that it alone made change intelligible, should have dimly felt that there was something wrong

with its 'system'. Small wonder that it has turned its back on itself and has tried openly to expel change from its system, as being wholly 'unintelligible,' and as being therefore 'mere appearance'.

But now the trouble is that you *don't* get rid of change by calling it 'appearance,' or by any other opprobrious name. "Plus ça change, plus c'est la même chose" is most literally true of change itself. Least of all can it change its identity by changing its name and address. The more clearly you establish the impossibility of 'understanding' change, the more sharply you emphasise its character as *immediate experience*, together with its entire independence of anything that idealists will admit as a 'rational principle'. The very completeness, then, of the failure to 'explain' change makes it impossible even to explain it away. And how, we may well ask, if the bare idea of change so conflicts with the nature of thought, is it possible even to think of it as 'appearance'?

We may reject change with our lips; but as an irreducible and inexpugnable element of experience it must continue to rule our thoughts—unless we frankly admit that what we choose to call 'pure thought' has absolutely nothing at all to do with experience. Change is, in short, the one thing from which there is no possibility of escape; for escape itself is a kind of change. "When Me they fly, I am the wings," is obviously truer of motion than it is of the Absolute. To call change 'unreal,' therefore, is to submit the meaning of the word 'unreal' to a strain which is really greater than it can bear. An 'unreality' of this peculiarly self-assertive and independent character is the most real thing that we can ever meet. All that we shall have done by calling change 'unreal' is to compel 'Unreality' to pass over into its Opposite. Thinking to get rid of change we shall only have got rid of meaning.

Thus the final result of the idealistic criticism of Locke and Hume, so far as it can be said to amount to anything at all, has been to free empiricism from errors and irrelevancies, and so to place it on a firmer basis than before. While only too evidently unconscious of what it was really doing, this idealistic criticism has shown conclusively that you cannot intelligibly deny the reality of the change-experience, and that *you cannot get the change-experience out of anything other than itself*. In other words, it is the ultimate character of experience to be experience of change. *And it is impossible to derive the idea of change from any other source than the original experience*. The real mistake of the early empiricists lay, not in trying to derive the idea of change

from experience, but in supposing that it could be derived from experience conceived as consisting of static and self-contained 'states of consciousness'—from something, that is, that could not possibly be the 'exemplar' of the idea. It was not the empirical principle, but their conception of the nature of experience that was here at fault.

And speaking generally, the spiritual re-birth of the early empiricists was not sufficiently complete. Trailing clouds of rationalistic glory they came. Their empiricism was not, in James's phrase, sufficiently *radical*. On the one hand, they still hankered after 'logical certitude'; on the other, they did not claim for immediate experience one half its due. They did not recognise unequivocally that applicability to experience is the soul of meaning. They acquiesced in the hard-and-fast distinction between terms and relations. They broke up the continuous and continuously growing stem of living experience into discontinuous dots, as loose and separate as words in a lexicon. These 'states of consciousness' were so purely momentary as to be practically timeless, though not of course eternal. And in each successive 'state of consciousness'—such was Hume's *reductio ad absurdum* of his predecessors—the identity of knowing and being was so complete that this purely momentary state was cognisant of nothing but itself.

But, in their eagerness to rehabilitate the 'logical certitude' that Hume had discredited in regard to 'matters of fact,' rationalists failed to see what was really wrong with Hume's philosophy. This seething mass of fallacies—which there is no reason to think Hume himself believed, though it amused him to puzzle his philosophical *confrères*—was swallowed *en bloc* by the 'Critical Philosophy'. The only important difference between Humism and Idealism is that the latter substitutes one kind of timelessness which it miscalls 'eternity,' for another which frankly disclaims all theological associations. Otherwise the 'Eternal Consciousness' reproduces the Humian conception of a 'state of consciousness' in all its typical features. As James says, "The only service that transcendental egoism has done to psychology has been by its protests against Hume's 'bundle'-theory of mind. But this service has been ill-performed; for the Egoists themselves, let them say what they will, believe in the bundle, and in their own system merely *tie it up*, with their special transcendental string, invented for that use alone."[1]

[1] *Principles of Psychology*, i., 369-370.

V.

The main object of this paper has been to show that, as regards the perception of change, the 'radical empiricism' of James succeeds, where rationalism fails, in furnishing an Answer to Hume which is at once relevant and complete. But in conclusion we may briefly touch on the question whether change, recognised as immediate experience, must still be regarded as 'unintelligible'.

If we assume, with the idealists, that to 'understand' anything is to bring it into harmony with the nature of 'thought' by purging it of the time-element, then indeed change itself, as we have to some extent already seen, is even more 'self-contradictory' and 'unintelligible' than idealists seem to have bargained for. For in that case change cannot even be understood without being theoretically destroyed; while if it is *really* destroyed, whether by criticism or by comprehension, a real change will then have taken place in our ideas, though nowhere else. Thus the assertion that change is strictly unthinkable and that reality therefore must be timeless, turns out to be indistinguishable from the assertion that thought *alone* is really changeable. If, however, we cannot change our minds without self-contradiction, we may as well *continue* to believe in the reality of change.

And there is an even more obvious consideration which should convince us that the attempt to apply the abstract principle of contradiction to the fact of change is literally suicidal. So to apply the principle is simply to *admit* that it conflicts with the whole of our experience: which is to admit that it is experimentally disproved at every moment of our lives. At best the 'truth' of the principle can only be saved under these circumstances by the further admission that it is practically useless, and scientifically unworkable. Or we may put the matter still more simply, thus. If in any sense change is self-contradictory, *in that sense* self-contradiction must in real life cease to be a valid ground for the rejection of any belief whatsoever; if only because it then ceases to have any *discriminatory* value. Hence, to apply the principle to change automatically destroys its claim to be unconditionally 'true'. Even if we still insist that it is 'theoretically' true, we must in practice refuse to be influenced by it. And if we are 'for the law but against its enforcement,' in what sense can it still be described as a law of thought? Here, at any rate, is a clear case where a 'principle' in becoming useless becomes simply meaningless.

Thus, if change is really such as to conflict with the 'laws of thought,' it seems to be almost diabolically determined not to do the thing by halves. But the result of the conflict is very different from what the idealistic backers of 'thought' naïvely imagined it must necessarily be. For change *successfully* defies and tramples on these precious 'laws,' and so makes their pretence to be laws of being look simply ridiculous. Let me say once more that what the 'self-contradictoriness' of change directly establishes, is that these 'laws' are no better than magical incantations, to which Nature, as a process of change, pays not the slightest attention; and which science accordingly would be foolish to treat otherwise than with contempt.

But it also proves something else. It proves that the sweet simplicity of Formal Logic has blinded idealists to the not unimportant difference between a reasoned truth and a *Reductio ad Absurdum*. The suppression of this distinction is of course the most notable and the most characteristic simplification that Formal Logic has effected in the theory of reasoning. The intrinsic absurdity of a conclusion does not affect its 'formal truth' or 'validity'; and 'validity' is all that Formal Logic takes cognisance of. Indeed, the greater the absurdity of the conclusion, the more brightly does the purity of the reasoning shine forth, undimmed by the irrelevancies of actual fact, or mere 'material truth'. Hence, though Formal Logic does not itself enable us to discriminate between fact and absurdity, nevertheless the Truly Absurd, or Genuine Nonsense, as opposed to the inartistic imitation known as mere incoherence or gibberish, is just Formal Logic in the luminous and convincing shape of concrete example.[1]

Now idealists and intellectualists generally have always prided themselves on 'following the argument whithersoever it may lead'. This attitude of mind has been dignified by the name of 'the disinterested Love of Truth'. But it quite obviously is just the essential standpoint of Formal Logic and nothing else. Very naturally, then, idealists have failed to observe that the 'self-contradictoriness' of change dishonours, not change, but the principle of contradiction; and in general have not realised that a principle may be undeniable in the abstract, *i.e.*, when not in use, and yet become false or

[1] From the point of view of Formal Logic, the lunatic is probably the typical *ens rationale*. "The origin of the abnormal mental processes is not to be found in any disturbance of the reasoning powers *per se*, but in the material which is presented to those powers" (*The Psychology of Insanity*, by Bernard Hart, p. 128).

even meaningless in a particular application. In other words, the final source of the intellectualist fallacy is to be found in that ideal of 'logical coerciveness' which ignores *the testing of the premisses* in the conclusion. A better example than idealistic philosophy itself affords of the errors and absurdities latent in those typically indisputable 'truths' called the 'laws of thought,' it would be hard to find. But it is a deep discredit to philosophy at large that the 'laws of thought,' which Formal Logic so long ago 'discovered' and let loose on mankind, should only quite recently have been found out.[1]

So much for the rationalistic ideals of 'knowledge' and 'intelligibility'. But if, weary of the essential irrationality of rationalism, we turn to the view that the proper function of intelligence is so to conceive fact as to enable us to control it, we shall have no difficulty in recognising that change, simply as such, *is already understood in the act of being experienced*. If thought and reality are anywhere interpenetrative, it is surely here. But, historically speaking, philosophy has ever sought to paint this lily white. We philosophers have foolishly tried to 'put into words' what every one knows at first hand, and what no one therefore—except of course a philosopher—requires to be *told*. It really ought to have occurred to us sooner that language was originally invented, not for the purpose of elaborating the obvious, but for that of imparting real information; and that therefore the empirical *elements* of description are none the worse for being 'ineffable'. In fact they only are ineffable, if 'ineffable' *means* 'elementary'; not so, if it means 'incommunicable'. We have no words wherewith to *dissect* change, but we have a word for the thing itself, namely the word 'change'; as well as words for specific modes of change, such as *e.g.* growing, learning, forgetting. And the reason why we have no words wherewith to dissect change, is that the thing itself, as Bergson also has pointed out, is absolutely indecomposable. But philosophers, for the most part, when, on asking for words and yet more words, they are referred to their own experience, feel as if they had asked for bread and been given a stone. When told to use their eyes and ears they shake their heads and mutter "Mysticism!"

[1] Mr. Alfred Sidgwick was the first to point out that "the 'laws of thought,' though ideally true, are false in every case as applied to actual things" (*Distinction and the Criticism of Beliefs*, p. 56). And he shows (*ibid.*, p. 71 f.) that the truth of this remark follows directly from the fact that "Nature is continuous throughout". *Cf.* the same writer's *The Use of Words in Reasoning*, p. 159 f., and Dr. F. C. S. Schiller's *Formal Logic*, chap. x.

The most persistent fallacy in philosophy, historically considered, is one which, very significantly, has remained up to the present indesignate. It is the *Fallacy of Logomorphism*. Rationalistic philosophers, more particularly, have ever treated words as ends in themselves, and practically as things-in-themselves. They have made, not thought, but *words* the pattern of Reality. But if we once can grasp that the real, as opposed to the merely grammatical, meaning of words lies in their application, then at last language may cease to be as efficacious in concealing the reality from ourselves as it is in concealing our thoughts from others.

III.—MR. BRADLEY ON TRUTH AND REALITY.[1]

By C. D. Broad.

Within the narrow limits of a review it is hardly possible to do justice to the work of so important a thinker as Mr. Bradley, and the Editor of Mind has kindly suggested that my notice of *Essays on Truth and Reality* should take the form of an article.

The present volume consists mainly of reprinted papers, but there is some hitherto unpublished matter in it, and the whole—apart from its intrinsic importance—should be of great help to the reader of *Appearance and Reality*, many points in which it explains and amplifies. It seems rather a pity that Mr. Bradley should have devoted so much space to the discussion of Pragmatism, though one can hardly wonder, seeing that its chief stock-in-trade —in England, at any rate—consisted of attacks on himself. But fashions, in philosophy as elsewhere, quickly change; the latest mode is now imported from Paris and not from America; and Mr. Bradley's criticisms, though acute and deadly, do but tear up the cast-off garments of yesteryear. There are however many points where this book comes in contact with other really important contemporary philosophic views, *e.g.*, in the criticisms of Mr. Russell's theory of judgment and of some notions used by him in his *Principles of Mathematics*, in the question, "What is the Real Julius Cæsar?" and in the discussions on Prof. James's *Radical Empiricism*.

I do not propose to criticise the book chapter by chapter, but to try and make my discussion a continuous whole, as the work itself in the main is. In the Introduction we are told that everything is in the end subordinate to the Good in the sense of "what contents". Truth, in particular, is what satisfies the intellect, and what is contradictory is false because it fails to satisfy the intellect. It seems to me that here there is some danger of the error into which Mr. Bradley

[1] *Essays on Truth and Reality*. F. H. Bradley. Pp. xvi., 480. Clarendon Press.

finds the Pragmatist to fall about humanity. Whose intellect precisely is to be satisfied? No doubt he means that only truth can in the long run satisfy the intellect; in the meanwhile surely some minds rest satisfied with what is false. It hardly seems to me that we can say that contradictions are false *because* they fail to satisfy the intellect, the only way to support this would be to make the satisfaction of the intellect a part of the definition of truth. This is not what we actually do mean by it, though we must certainly assume to avoid scepticism that nothing but truth will permanently satisfy it. But this seems clearly a synthetic proposition.

Anything that really satisfies any one is *pro tanto* good in itself. And, if a man really is satisfied with anything, there is nothing which from the outside has any claim against this thing. The two statements (*a*) that all that really satisfies any one is *pro tanto* good, and (*b*) that nothing outside has any claim against any genuine satisfaction, seem to me to need a good deal of amplification. Suppose a man gets genuine satisfaction from pulling the wings off flies. For the satisfaction to be genuinely unmixed he must of course have no moral scruples; and I can see that, if this be so, our adverse judgment on his satisfaction, if we make it, will and should leave him unmoved. In this sense his satisfaction is invulnerable from without if it be complete within. But, on the other hand, it seems to me that my adverse judgment which he justifiably refuses to accept is none the less true: and, if so, how can we admit that his satisfaction is *pro tanto* good? I suppose that Mr. Bradley's contention would be that it is at any rate better that a bad man should be satisfied with a bad satisfaction than that he should be unsatisfied in this bad desire: that in fact, putting the feelings of the flies and of other people out of consideration, the state of the man who wants to and does pull the wings off flies is better than that of the same man prevented from doing so. I admit that it is difficult to decide on such a point, but at least the conclusion does not seem obvious.

However this may be, Mr. Bradley justly says that no side of our life is either wholly good or the whole good: so you can never set up one side of life as an end and make all the others means to it. The importance of this conclusion to us is in its application to the relation between philosophy and ethics and religion. I do not think I agree with all that Mr. Bradley says in this connexion, though the difference may be mainly one of emphasis. His position is that ethics and religion can only dictate how much time we shall give

to philosophy, and not how we shall philosophise. They can only speak indirectly by saying to the intellect: "Are you really satisfied whilst we are not?" So far I agree. But I hardly think that Mr. Bradley emphasises enough the other side of the picture. He says that ethics and religion need not give up their positions if philosophy conflicts with them, and he constantly insists on the folly of dropping ethical and religious convictions from a craven fear of inconsistency. He is thus enabled to make a delightful *ad hominem* retort to William James (p. 132), but I think a rather one-sided impression is produced. In the first place the intellect has at least the correlative right to say to ethics and religion: "Are *you* really satisfied while I am not?" This of course Mr. Bradley would not deny: but it seems to me that the question from intellect to the other sides of our nature is a much more serious one than the corresponding question from them to it. What fails to satisfy our intellects cannot—we must assume—be real, but what fails to satisfy our desires and aspirations surely may be. Would religion and ethics really be satisfied, and would the former retain its consolatory aspect, if they once recognised and faced their intellectual incoherence?[1]

A negative answer to this question is quite compatible with Mr. Bradley's warning against making any one side of our nature a means to any other. It is quite certainly absurd to make all sides of our nature subordinate to mere truth-seeking, but this is compatible with the view that what fails to satisfy our intellect cannot be ultimately real, whilst what fails to satisfy the other sides of our nature very well may be.

I hasten to add in fairness that Mr. Bradley does not think that there is any ultimate conflict between intellect and the other sides of our nature, and that his doctrine that no truth is quite true is here relevant. I understand his position here to be as follows: Coherence is the test of truth; but then no truth can be quite true, and therefore the mere fact of discovering inconsistency in any particular region is of no *special* importance. You can be sure beforehand that it will be there, and the only question of importance is the degree of it. And apparently one test of degree of coherence is the extent to which our nature as a whole is satisfied. The beliefs of ethics and religion satisfy a great part of our nature very fully, and therefore they must have a high degree

[1] I must not be taken in what follows either to assert or to deny that there is a fundamental inconsistency in ethics and religion. For Mr. Bradley there is, and must be, and I am merely choosing this as an example without pronouncing on the facts.

of coherence and of truth, though we know that—like everything else—they are neither quite consistent nor quite true. Their mere incoherence is no special reason for dropping them; the degree of satisfaction that they offer is a reason for ascribing a high degree of truth to them.

To consider the validity of this contention we must come to closer grips with Mr. Bradley's theories of truth and coherence. These theories, on the face of them, seem to involve three different applications of coherence. In the first place, the ultimate standard of truth is always coherence, and, judged by this standard, truth as a whole condemns itself. Secondly, granted that no judgment is quite true or quite false, still there are degrees of truth, and these are correlated with (perhaps—I am not sure—identical with) degrees of coherence. Finally, it would seem that, whilst coherence or the lack of it may be recognised immediately, there is also a test for its degree in extent of satisfaction. For instance, I can see directly that the judgment that $2 + 2 = 4$ has a very high degree of coherence, and that Charles I. died in his bed has a very low one, without referring to the satisfaction that these beliefs give to my nature as a whole; whilst, in spite of the fact that I can see in this sense that the beliefs of religion are inconsistent, I am to suppose that they really have a very high degree of coherence because they satisfy so much of my nature so fully.

We will leave the first point for the present, and pass to the other two. I am not clear as to the relation between the amount of incoherence discovered by the intellect and the degree of coherence to which a certain degree of general satisfaction points. Clearly they can conflict. As far as concerns the incoherence that the intellect can discover arithmetic would seem to be much more coherent than religion; yet I take it that Mr. Bradley would consider religion much truer than arithmetic. Yet, on the other hand, I understand that the degree of truth ultimately depends only on the degree of *intellectual* coherence, and that general satisfaction is only a test in as far as we know somehow that it is an indication of a high degree of this kind of coherence, in spite of the dissatisfaction that the intellect directly feels. But surely the intellect may be expected to know its own business best: and it is rash to use this external test as a ground for saying that something really must have a high degree of coherence of the kind that would satisfy the intellect, when the intellect itself positively finds great incoherence. The sort of coherence that can plausibly be taken as the measure of truth is that of a logically consistent and

inclusive system of propositions. Again, our desires and aspirations may be for things whose existence is incompatible with such a system ; and, if so, they can be called incoherent. But there is nothing *logically* incoherent in the existence of desires and aspirations which are incoherent in this secondary sense ; and therefore there is no reason, on the coherence theory of truth, to suppose that our desires may not be such an incoherent system. Hence, if the intellect positively pronounces that they are, no argument that says that, if this be so, a very important side of our nature will be unsatisfied, gives any reason for ascribing a high degree of truth and reality to what would satisfy this side of our nature. Of course the "inclusiveness" aspect of the coherence theory involves that we must not omit to take account of any side of our nature as a fact, but it is quite open to us to recognise (*a*) the existence of a number of desires and aspirations as existent facts, and (*b*) the further fact that they are desires and aspirations for logically inconsistent objects, whilst (*c*) they are, as facts, coherent in the sense of being connected by intelligible laws with each other and with the rest of the universe.

Nothing that I have said here appears to be affected by the point made by Mr. Bradley that incoherence may show itself, not in explicit contradiction, but by mere felt uneasiness. No doubt it may; but it is only that felt uneasiness which, when made ideal and explicit, appears as *logical* incoherence that can plausibly be taken as relevant to degree of truth, and not that which, when made explicit, appears as mere frustrated desire or aspiration, other than the desire for truth.

Let us now return to another very important point which is still connected with the present subject. It may be said that, since no judgment can be quite true, all must disclose theoretical inconsistency somewhere, and therefore we need never in particular cases trouble about this, but need only concern ourselves with the degree of coherence; and for this we need some new test like the satisfaction of our whole nature. To this I would make the preliminary replies (*a*) that the intellect itself can in many cases judge not merely of the fact but also in a measure of the relative degree of coherence; and (*b*) that, if for us men some other test be often needed, still, for the reasons that I have offered, the satisfaction of our whole nature does not seem to be a very trustworthy one, especially when it conflicts with a positive pronouncement of the intellect. But much more fundamental issues are here involved.

Coherence may be the sole ultimate criterion both of truth and of truths, as I understand Mr. Bradley to hold; but still there is a great difference in the condemnation of all truth and the assertion that there are degrees of truth; and, presumably, there will be a different use of the principle of coherence for these two purposes. Judgments can become truer by supplementation of matter of the same kind, but no amount of supplementation will make any judgment quite true. And again there are some judgments so true as to be intellectually incapable of further improvement. We shall see what these are later. Superficially there are two inconsistencies in Mr. Bradley's book on this point. (*a*) He insists that there is nothing merely ideal or imaginary, that every idea qualifies some sphere of reality. But what sphere, on his view, does the notion of complete truth qualify? It is not a quality of any judgment, for no judgment is quite true. Nor is it a quality of judgments as supplemented by the other aspects of reality which they err by ignoring; for truth belongs to the world of the ideal, and the supplemented judgments have passed beyond truth. Yet I suppose there must be an idea of the completely true, or we could hardly deny that anything is completely true. (*b*) In arguing against the notion of absolutely certain judgments of perception and memory Mr. Bradley says that, by refusing to assume that they are true, we do not assume that they are all false; for this would lead to scepticism. But of course, in a sense, this is exactly what he does assume about all judgments; and yet he does not end in scepticism. But I quite recognise that these two criticisms, as they stand, are external and formal, and that they need an elaboration that will perhaps end in their overthrow. For instance, to the second I suppose that Mr. Bradley would answer: We should certainly be led to scepticism if we assumed that all judgments were false in your sense, who believe in absolute truth and falsehood: but then I do not believe that any judgment is false in this sense." And, in the first, I feel that there is at least an ambiguity about qualification to which I shall return. But these two objections do at least suggest the question whether the same thing precisely is meant by truth and falsehood when we say that no judgment is quite true or false, and when we say that judgments have degrees of truth. There is of course no formal incompatibility between the two statements, even if truth and falsehood mean the same in both, but at least the question whether perhaps they mean something different is worth discussing.

Let us then consider the two questions: Why and in what

sense are no judgments quite true or false? and In what sense are there degrees of truth and falsehood?

Mr. Bradley discusses much more fully why no judgment can be quite true than why none can be quite false. As far as I can see the reason why no judgment can be quite false is because all ideas qualify reality. It is also said that, in all judgments, we qualify reality by an idea. But I confess that I am far from clear as to what is meant by qualification, and whether it is supposed to have the same meaning in all judgments. Take the two judgments: Queen Anne is dead, and, Reality is an harmonious system; both of which Mr. Bradley would admit to have a considerable degree of truth. I can see that, in the second, I assert that reality has the quality of harmony; and here harmony seems to qualify reality in precisely the same sense as, in the first, deadness qualifies Queen Anne. But the judgment that is grammatically about Queen Anne actually, we are told, asserts the qualification of reality by an idea. But what is the idea? Either qualification is used in a different sense, or the idea which is asserted to qualify reality is not that which explicitly appears in the judgment; for reality is certainly not dead in the sense in which it is harmonious. The same obvious point can be raised in connexion with Mr. Bradley's doctrine of the imaginary. An imaginary idea is one that does not qualify one sphere but does qualify another; and, of course, all spheres are contained in reality. Hence no imaginary idea, at any rate, can qualify reality as a whole in the same sense in which that of harmony does; for a quality of only a part of a whole cannot in the same sense be a quality of the whole. Hence, when we say that, in all judgments, reality is qualified by an idea, we cannot possibly mean the same thing by qualification in the case of all judgments.

What meaning then can we give to the statement that all ideas qualify reality? There are three obvious meanings that can be given to it. (1) Taking ideas as universals, we might say that universals are contained as elements in reality. This is obvious for any one who accepts such a view of universals as Mr. Bradley criticises in Mr. Russell; but, of course, Mr. Bradley does not accept this view, and so the present meaning cannot be his. (2) Taking ideas again as universals, it might mean that all universals have instances, which, of course, are elements in reality. I know that Mr. Bradley objects to the notion of universals and instances, but I can best express to myself by this phraseology a part of what he seems to me to mean by the statement that there are no mere ideas. We have already rejected an alternative

suggestion, which we must just notice here for the sake of completeness—*viz.*, that reality is an instance of all universals. (3) But ideas further, in Mr. Bradley's phraseology, have a psychical side. He will not allow us indeed to say that ideas are awarenesses of universals; but, in the phraseology of universals, a third meaning might be given to the statement that all ideas qualify reality, *viz.*, that there are no universals that do not enter into some psychical state which is an awareness of them, though not an instance of them. Mr. Bradley may be right in his rejection of the two notions of instances of universals and of awareness of them; but, at any rate, two different notions which, in my mind, correspond to these two expressions seem to be involved in his phrases about the "divorce of existence and content" and the "what working loose from the that". Generally these phrases seem to refer to the distinction between an idea as a psychical state and as a predicate; but, at other times, they seem to correspond to the distinction between a predicate and a whole given in feeling or perception which, on intellectual analysis, is found to have that predicate. Two different notions seem to be present, and I cannot collect from Mr. Bradley a satisfactory account of their distinctions.

It will repay us to discuss this matter a little more fully; and Mr. Bradley provides us with material in his criticisms of Mr. Russell about our knowledge of universals. Mr. Bradley's doctrine appears to be as follows. My idea of a triangle in general is a particular existent. (Here I imagine there will be no dispute.) But I ignore or exclude the particularity as irrelevant: I use the instance whilst ignoring that it is an instance; and, whilst aware of the plurality of instances, I hold that their differences can be neglected. But the basis of my negation of the relevance of the difference is not the positive awareness of a universal: it is not an object, but is something in the object that repels all else in it that conflicts with reference elsewhere, and is felt to answer to a recognised employment and name. There is much in this that I do not follow. Apparently we have a particular state of mind whose object is a particular triangle: neither the state of mind nor the object can be used as a predicate, but it seems that a part of the object can repel other parts that prevent the whole being used as a predicate. But can they? In the ordinary sense of parts, the parts of my object when it is a particular triangle are its angles and sides; which of these prevents it being used as a predicate, and which of them repels these parts and allows it to be used as a predicate? I fail to see that a particular triangular

object or any part of it ever can be used as a predicate, and, *a fortiori*, that such a use can be helped or hindered by the action of any of its parts.

Unless I have totally misunderstood here, it seems to me that parts are being used in the same sense as other people use universals. No doubt, if my particular object is red and equiangular, it is possible to say that it is its redness and equiangularity that prevent it from being predicated of other triangles which may be blue and scalene. But, in the first place, these are already qualities and not parts of my object, and, in the second, even when my object is blue and scalene, it cannot be used as a predicate either of itself or of other blue and scalene triangles. And I do not see how the reference to feeling and language help us here. When I apply or withhold the name "just" from an action it is perfectly true that I may not be able to point to what is common to the cases where I apply it and absent from the cases where I withhold it. But this only seems to show that I can have a feeling of the presence or absence of a universal, and can, by anticipation, give it a name which I apply when I have the feeling of presence and withhold when I have that of absence. The feeling warns me of the presence or absence of what I already recognise, by giving it a general name, to be a predicate or universal; and this universal may, so far as I can see, by attention and analysis become an object for me. It is possible indeed, though I am not at all sure, that, even after the universal has been discovered, a necessary condition for its becoming an object to us is that some particular instance of it shall be present to the mind; but this is as far as I can go in Mr. Bradley's direction here.

Having now discussed the ambiguity in the phrase 'qualification of reality,' and suggested and tried to defend some possible meanings of the statement that all ideas qualify reality, we can return to the question whether any judgment can be quite true or quite false. The result of our distinctions seems to me to be that there is no reason why some judgments should not be quite false. If all ideas qualify reality, still, we have now seen, the most that this can mean for the present purpose is that all ideas qualify some part of reality. Hence, if I assert that an idea qualifies reality as a whole, when it really only qualifies some part of it, or if I assert that it qualifies some region of reality when really it only qualifies another, it will be no objection to the entire falsity of my judgments to say that, at any rate, the idea, like all others, does in a certain sense qualify reality. Whether we shall have to modify this view when we come

to consider why no judgment can be quite true remains to be seen; but we can see at once that there is no *direct* logical connexion between the two doctrines that no judgment is quite true and that no judgment is quite false.

Let us now consider why and in what sense no judgment can be quite true. Let us note at the outset that this is wholly different from the statement that no judgment can be *known* to be quite true. Mr. Bradley devotes a good deal of space to refuting doctrines which imply that some judgments, *e.g.* those of memory and perception, can be known to be quite true. In the main I think he is here successful, and I shall return to some of his arguments later. Of course, if such doctrines were true, his own would be false; but their refutation, as he is well aware, does not prove his own doctrine. This he rests on positive arguments. The main contention seems to be as follows: (*a*) All judgments ultimately take the form Reality is so-and-so, which Mr. Bradley writes R*a*. (*b*) Consider two different judgments R*a* and R*b*; since these differ *a* and *b* will be different predicates. Hence (*c*) if R*a* means $R \equiv a$ and R*b* means $R \equiv b$, there is a contradiction at once. But, if not, then (*d*) your real assertion must be R(x)*a* and R(y)*b*, where x and y are conditions. Apart from these conditions the judgments are not true. But (*e*) a judgment that is only true subject to an implicit condition is not itself true. Finally (*f*) it is no use for you to answer that you have merely not troubled to make the conditions explicit; for the fact is that you cannot in any case make them all explicit. Let us consider this argument carefully.

I have already said that all judgments do not seem to me to ascribe predicates to reality, but, at best, to parts of reality, a very different thing. And this seems to be involved in Mr. Bradley's own arguments about the imaginary. But Mr. Bradley has an argument in support of his own views which we must now notice. No limited subject, he says, is real. In fact you can put the objection to judgments in a way that mainly concerns this point. They are false (1) because they take the subject too narrowly and leave out conditions; and (2) because, when the conditions are put in, the subject approaches nearer and nearer to reality as a whole, and this is not what we originally meant to judge about. So the question whether all judgments really take the form R*a* or whether there can be partial subjects leads us to the question of conditions.

I think that there is a good deal of ambiguity in the notion of conditions. In one sense you can say that a partial sub-

ject like Queen Anne is conditioned just because it is a part of the universe. Without her the universe would be different, and she is related in various ways, certainly to many things, and, perhaps, to everything in the universe. But when you say that a judgment is true subject to a condition, I take it that you mean it is false unless something else is true. I understand one part of Mr. Bradley's doctrine to be that, because all partial subjects are conditioned in the first sense, therefore all judgments about them are subject to conditions in the second. Now can I ever (*a*) make a true judgment, and (*b*) know that it is true, unless I know the conditions which must be fulfilled if it is to be true? All categorical propositions are, no doubt, also antecedents in some hypothetical propositions; but we can hardly maintain that the *knowledge* of their consequents in these hypothetical propositions can be relevant to the *truth* of the antecedents. Again the mere fact that all categoricals are also antecedents in hypotheticals can be no reason for thinking them false, unless we believe that all hypothetical propositions have false antecedents, which seems, at best, groundless. Thus the fact that all categoricals are antecedents in hypotheticals, and the fact that we are not acquainted with all the consequents, seem to be no reason for thinking that we can never happen to make a true judgment.

Are there any reasons for thinking that we can never *know* that any particular judgment is true? This might be asserted on two different grounds. (1) It might be argued that we can never have a rationally justifiable certainty in any judgment which as a matter of fact implies others, unless we are aware of all that it implies. Or (2) it might be said that the unknown conditions are liable to change, and therefore any judgment that ignores them will, whilst retaining the same form, be sometimes true and sometimes false, and therefore always uncertain. The first argument is plausible—especially on the coherence theory of truth—and I am not going to quarrel with it at present. The second is by no means clear, because the notion of a changing condition is far from satisfactory.

But, before I enter into this matter, I would suggest that there is a whole set of judgments to which this objection, whatever form it ultimately takes, can be directly seen not to apply. This set includes, among much else, all pure mathematics. $2 + 2 = 4$ is undoubtedly conditioned in the sense that it implies other propositions, so that, if these be false, it will be false. But it seems to me that we can be certain (in the same way perhaps as Mr. Bradley is certain

that a term cannot be diverse from itself) that all these conditions are, in every possible sense of the word changeless. Hence our belief in such propositions need suffer no diminution from any fear that their unknown conditions may change (whatever that may mean). I suppose that Mr. Bradley's answer would be that any such notion must involve the view that the entities with which these propositions deal are related merely by "and" to the rest of reality, and that this is impossible. But I do not see that this follows, and I do not believe it to be true. I seem to be able to see that such things as 2 and 4 cannot change, and yet that their relations to changeable collections of two and four things are not mere "and" relations. But I shall return to the question of external relations later.

Another set of propositions which seem at first sight to be unaffected by the present objection is singular propositions about existents; like Queen Anne is dead, or I have toothache now. If various conditions had not been fulfilled Queen Anne would not be dead and I should not have toothache now. But it would seem that no change of conditions that can possibly happen in the future could make Queen Anne alive again or alter the fact that I have toothache now. To this however Mr. Bradley would have no difficulty in answering. He would ask: What precisely do you mean by "Queen Anne" and "I" and "now"? All that they can mean for thought must be universal; and can you deny that conditions might arise under which a person who answered exactly to your description of Queen Anne should be alive in the future, or a person answering precisely to your description of yourself should not have toothache at another (and intellectually indistinguishable) now?

I shall have something to say about designation later; in the meanwhile, what is meant precisely by truth changing with change of conditions? The condition of one judgment is, strictly speaking, always other propositions, and of course these cannot really change with respect to truth or falsehood. What is meant is this. My conditioned judgment may be stated in the form S is P, but its real form may be S is P at t_1. Now the truth of S is P at t_1 is of course compatible with the falsity of S is P at t_2. This fact is what is expressed by saying that the *judgment* S is P is sometimes true and sometimes false; it really means that the *function* S is P at t gives true propositions for some constant values of the variable t and false ones for others. When S is known to be the kind of thing which, as we say, changes in time the natural interpretation of the incomplete form S is P is

'S is P at t is true for all values of t,' or S is always P; and this is false if *e.g.* S is P at t_2 be false. It is now easy to see what the change of truth through a change of condition means. S is P at t may imply, for all values of t, R is Q at t, but R is Q at t may be false for some values of t; then S is P at t will be false for some values of t, or, as we loosely say, S is P will sometimes be false. What is the upshot of all this? Not, so far as I can see, that no judgment of the form S is always P can possibly be true, but, at worst that, if S is P at t always implies other propositional functions of the form R is Q at t, and these are unknown, there is a chance of error in asserting that S is always P, because it may be false that R is always Q. Thus this argument does not seem to me to be relevant to the possibility of the complete *truth* of any judgment; nor to the possibility of practical certainty of the truth of a large class of *universal* judgments; nor, finally to the possibility of practical certainty of the truth of such judgments as S is sometimes P.

But, in all this, I have perforce neglected another side of Mr. Bradley's doctrine, because I cannot discuss everything at once. To it I now pass. This is the assertion that, for a true judgment the conditions must go into the subject. This has two consequences: ultimately we are left with no partial subjects; and further, since all the conditions never can go into the subject, no judgment is quite true. The doctrine has two sides. The conditions must not only go into the subject, but they must be there explicitly. Judgments that claim to be about partial subjects err in both respects, but judgments which, in the ordinary sense of qualification, qualify reality as a whole only err in the second. Thus, as Mr. Bradley says somewhere, such a judgment as Reality is an harmonious experience is so true as to be *intellectually* incorrigible. We can see from what has gone before why it is that the conditions must become explicit. A universal judgment whose truth depends on that of others which are not explicitly known but are known to be variable in the sense discussed above, need not indeed be false, but will always be uncertain till we have these conditions explicitly before us. But this does not explain either (1) why and in what sense the conditions must go into the subject, and therefore why partial subjects must expand at all; or (2) why, if they do expand, they must do so till they become the whole universe. Suppose we start by judging that S is P. We may then go on to reflect that this is only so if Q is also R. And, it may be maintained that, when we have done this, we cannot be

sure that S is P independently of an assurance that R is Q. But, even if we do maintain this, our partial subject S has not altered, but we have two connected judgments each about partial subjects, *viz.*, P and R, not a single one with a new subject. And the whole notion of conditions essentially involves partial subjects. If a partial subject always becomes something else the moment we learn that it is conditioned, then what precisely is conditioned? The most then that seems to be proved is that some judgments about partial subjects will not be certain unless we can make other judgments about other partial subjects; not that our original partial subject has expanded whilst still remaining one. Suppose this expansion to go on without limit, then we shall still not reach a single judgment with reality as subject, but a system of connected judgments about all the partial subjects in reality. And none of the members of this system would be false, though it might be that, until you know the whole system, you cannot be certain of any part of it.

But is even this amount of expansion necessary? Why, granted that some partial subjects must expand in Mr. Bradley's sense, or granted that you must, for certainty in any case, take in judgments about other partial subjects, must we assume that the partial subject must expand to the *whole* of reality, or that *all* partial subjects must be taken in? I imagine that this conclusion rests on the two doctrines (*a*) that everything is related to everything else, and (*b*) that there are no merely external relations. I think we may admit at once that, if you take relation widely, everything is related to everything else, and that there are no mere "and" relations. Again, I understand the doctrine of internal relations to be that to every relation there is a corresponding quality in the related terms. Now it will doubtless follow from these two propositions that every partial subject will have qualities corresponding to relations to every other partial subject in the universe. But what of this? (1) Mr. Bradley, like every one else, rejects the notion that a term can consist wholly of its relations. Hence, presumably, the qualities that every term has in virtue of its relations to everything else are only a part of its qualities. Even if then those qualities of partial subjects which depend on their relations can only be asserted of them when all other partial subjects are taken into account, still there would seem to be a residuum of judgments asserting qualities of partial subjects, which are not open to this objection. (2) But why should this expansion be necessary even for asserting of a partial subject those qualities that do depend on its re-

lations to other partial subjects? S may have qualities corresponding one to each of its relations to every other partial subject. Why then, in asserting the presence of a quality depending on any given relation, need we take into account any other partial subject but the one to which your given partial subject has the relation in question?

I expect the answer to both these questions will be that I am misrepresenting the doctrine of internal relations. For instance, one might argue as follows. Consider the other qualities, which, you allege, do not depend on relations to other terms. You must grant that, in the term, they will be related to all the qualities that do depend on relations to other terms. Hence, if you are in earnest with the doctrine of internal relations, you must admit that each of these qualities has itself qualities depending on its relations to each quality that itself depends on the relations of your term to each other term in the universe. So your judgments even about these qualities will need the same infinite expansion as those which are about qualities that directly depend on relations. I will leave to the reader the easy task of working out a reply on the same lines to (2). I would point out however that there is a different principle involved in the original argument and in the reply to the objection. The original argument said that you could not ascribe a quality to any subject without taking into account all others, because every *subject* has qualities depending on its relations to all others. The reply argues that you cannot ascribe a quality to any subject without taking into account all others, because every *quality* has qualities depending on its relations to every other term. I confess that I am not convinced by either argument, but it seems clear that one might be valid and the other not.

The fact is that I have the greatest difficulty in understanding what precisely is meant by the doctrine of internal relations; and this difficulty prevents me from forming any clear notions as to what follows from it. We are told that the doctrine of internal relations means that every relation makes a difference to its terms. I do not in the least understand what this means. It can hardly mean the tautological proposition that, if a term stands in a relation, something is true of it (*viz.* the fact that it stands in this relation) which would not be true of it if it did not stand in this relation. It seems to mean then that, if a term stands in a relation, something is true of it beside the fact that it stands in this relation which would not otherwise be true of it. And I really see no reason to believe this. Matters are

not made clearer to my mind by Mr. Bradley's controversy with Mr. Russell about identity and diversity. Mr. Russell says that it is a mere fact that terms are not diverse from themselves and that they are identical with themselves. Mr. Bradley performs an ideal experiment and finds that the diversity of a term from itself is unthinkable. He further argues that it is nonsense to talk of mere facts for thought, and that Mr. Russell's view can only mean that he never happens to have met a term that was diverse from itself. And all this is supposed to show that relations like diversity are internal. In this controversy there is, I think, a measure of merely verbal minunderstanding. When we say that it is a mere fact that terms are not diverse from themselves we mean (*a*) that we believe it to be true (probably on much the same grounds of intellectual experiment as Mr. Bradley's) and (*b*) that we can offer no reason for it. We do not mean that our certainty is based on induction. In a sense this judgment can be said to be founded on the natures of the terms; but this means that it is immediately evident as soon as we consider the terms involved in it, and that no amount of further favourable instances increases the evidence for it, as they would do if it were based on induction. No reference to qualities implied in terms by relations will help us here. In the first place, I do not suppose that Mr. Bradley could tell us what is the quality present in all terms which is a reason why they cannot be diverse from themselves; and, in the second, if he could point to such a quality, the incompatibility between this quality and the relation of diversity between terms that possess it would still be a mere fact in the present sense. Further, if you must have a reason why *e.g.* 2 is not diverse from 2, must you not equally need a reason why 2 is a number? The latter demand seems to me an absurd one, but I do not know whether it would seem equally absurd to Mr. Bradley.

This seems to be the most convenient place to consider Mr. Bradley's statement that it is nonsense to talk about mere facts for thought, and his objection to designation. He argues that brute facts exist, if anywhere, in feeling; that it is of the essence of thought to be ideal and to pass beyond mere feeling; and therefore to talk of mere facts that thought must accept is nonsense. But I think that a distinction is wanted here. There are at least two kinds of facts, which agree in some respects and differ in others; and one kind seems to me to satisfy thought and the other not to. Take the two statements: It is a mere fact that grass is green and not red, and, It is a mere fact that two con-

tradictory propositions cannot both be true. We call these both facts because we (*a*) believe them to be true, and (*b*) can give no reasons for them. But, describe it as you will, there is also a great difference between them. Facts of the first kind do in a sense leave the intellect unsatisfied; we do not feel that we understand the connexion between grass and green, or that our whole intellectual world would be overturned if we some day happened to meet with red grass. Facts of the second kind do seem to me to satisfy the intellect. When we say here that we cannot offer a reason we do not intend to express any kind of intellectual frustration. In as far as the intellect has an ideal it would appear to me not to be one that demands the abolition of all facts, but only of facts of the first kind. If only all facts of the first kind could be directly replaced by ones of the second, or could be shown to be deducible according to principles which are themselves facts of the second kind from premisses which are of that kind, I believe that the intellect would be satisfied. How far such a demand could be met will receive a few words of discussion directly, in connexion with another point in Mr. Bradley's theories. In the meanwhile I must try to answer the obvious criticism that any such view brings back self-evident truths, and ignores Mr. Bradley's demolition of these in favour of the coherence theory.

The alleged self-evident judgments which Mr. Bradley sets himself to demolish are those founded on perception and memory. His arguments here are very plausible. But we must remember that such judgments, however certain, deal with facts of the first kind *par excellence*. In the discussions on coherence it seems to me that the propositions involved in the very notion of a coherent system have been somewhat neglected. To take a very simple example: Is the judgment that coherence is the ultimate test of truth accepted simply because it is coherent with all other judgments? If so, have we not a vicious circle? Unless this judgment can be known to be true independent of its coherence with other judgments how will the fact of its coherence with them prove its truth? For, *until* we know that it is true, why should we think the members of a coherent system more likely to be true than those of an incoherent one? Again, is the judgment that a certain system is coherent true merely because it is coherent with the other members of the system? To answer this in the affirmative is to extend the notion of coherence from propositions of the same order to those of different orders, and even where such extensions are plausible—as this certainly does not seem to be—they must be viewed with the

utmost suspicion. To put another but closely related side of the question: A coherent system seems to be one whose members are related in accordance with logical principles. These principles are themselves, no doubt, members of the system; but, unless they satisfy the intellect *apart* from considerations of their coherence with the other members of the system, the fact that the system as a whole is coherent in accord with these principles will not make it satisfy the intellect. My conclusion is that the coherence theory cannot do without facts of the second kind, and that these really do satisfy the intellect apart from their coherence with other propositions.

Before leaving this subject I want to make two small points. (1) Mr. Russell argued that coherence will only work as a test for truth if you take it as coherence with propositions known to be true on other grounds. If you take in the imaginary, he said, you could make up equally consistent and more inclusive worlds in which what we now take to be true would appear as illusions explicable by some of the imagined propositions. My argument is that there must at any rate be independent knowledge of the fact and of the principles of coherence, and therefore an argument directed by Mr. Bradley against the independent knowledge of the truth of other members of the system would not affect me. But is Mr. Bradley's argument successful even as against Mr. Russell? It is that you must take in *all* that you can imagine, and that then your imaginary factors will cancel out, and, in the main, leave standing those propositions that Mr. Russell wants to accept on independent grounds. But how does Mr. Bradley know so much about the world of the imaginary as this *merely* on the coherence theory? Surely another possibility is that the propositions of memory and perception would cancel out with a selection of the imagined propositions, and leave the rest of the imaginary standing. If Mr. Bradley says that this might be, but is actually not so, then I am afraid we have come back to a mere fact. (2) In a footnote Mr. Bradley replies to Prof. Stout that one proposition cannot imply another without the probability of the former being increased. This is only true if we accept the notion of a probability to every proposition independent of its relation to others (what is called an *à priori* or antecedent probability); otherwise it is invalid. But this notion (*a*) seems scarcely compatible with exclusive insistence on coherence, and (*b*) involves the use of a principle of probability (*viz.*, that if p implies q and neither p's nor q's *à priori* probability is 0 then p's is in-

creased) which, like all other *principles* of coherence, must be accepted on other grounds than that of coherence.

In connexion with facts I must say a word about the relation of feeling to thought. Mr. Bradley says that in philosophy it is useless to fall back on words like 'this,' 'mine,' 'now,' etc., and to ask any one to accept them as an explanation of anything. It is no use to say that we know what we mean by them when we use them, unless we can make this meaning explicit; and, of course, we cannot do this. Feeling, no doubt, has a certainty of its own, but you have no right to expect to carry this over unchanged into the world of judgment where you have definitely decided to leave feeling for explanation. This is closely connected with what I take to be Mr. Bradley's main ground for holding that no judgment can be quite true. We have indeed already described certain arguments dealing with partial subjects and conditions. These did not seem to me conclusive, and, it will be remembered, in the course of the discussion I said that conditions imply partial subjects just as much as partial subjects imply conditions. But this will leave Mr. Bradley unmoved because on his view *all* arguments about partial subjects, conditions, external and internal relations, etc., move in the world of the partially unreal. His arguments are meant to be just as fatal to conditions as to partial subjects. Such a line of argument, resting as it does on the principle that $p)—p\ .\ ) .—p$ is *formally* quite valid, and I only reject it because of difficulties that I find in its premisses. But, though this is Mr. Bradley's explicit argument, I do not think it is his main or most impressive reason for his conclusion. This seems to be contained in the following considerations. In a footnote to page 229 he says that, when you assert R*a*, R and *a* must differ; but then R, *a*, and the difference must fall in a wider R and qualify it. And the question is how this wider R is constituted, and no amount of judgment will tell you, for you will only get an infinite regress of R's. Again we are told that the inconsistency of judgment is that it starts with the unity of feeling and tries to make that unity ideal. But the conditions of the unity have now gone, and thought tries to fill them in ideally in order to avoid mere identity; yet it never can reconstruct the unity of feeling.

I think that Mr. Bradley holds that these considerations are identical with those which we have already discussed about partial subjects, internal relations, and conditions. But I doubt if they are. The latter moved wholly in the region of thought, the ones at present under discussion deal

with the inadequacy of thought to feeling. And, even on the strictest coherence theory, I do not see that this inadequacy need betray itself by an internal inconsistency in judgments. However this may be, I think I can see the difficulty that Mr. Bradley raises here, though I find it excessively hard to put it into satisfactory language. I shall try to discuss the difficulty that I feel in my own words, not because they are likely to be better than Mr. Bradley's, but because I am not quite sure whether I mean the same thing as he does.

Let me first remove some ambiguities. Knowledge is a very ambiguous term. In one sense the only way to get to know anything is to learn things about it. In another sense I must already know a thing before I can learn anything about it. There is no direct contradiction here. Knowledge in the second sense means acquaintance, and seems to correspond to a part at any rate of what Mr. Bradley means by feeling. And mere acquaintance, even if it ever actually exists, would not be called knowledge. Again we can say that we know a thing better the more we know about it. In this sense we might be said to know a thing perfectly if we were acquainted with it, and also knew 'all that there is to be known about it' (if this phrase may be allowed for the moment). Further, when we say that we know something about x, the form of the expression suggests (rightly or wrongly) that we know 'something' and that this something (let us call it a proposition) has a certain relation—'about'—to x, a thing with which we are acquainted. If this suggestion be right the question at once arises whether knowledge of propositions is the same thing as acquaintance with subjects. I think it is evident that it cannot be. We talk of understanding a proposition; now there is nothing corresponding to this in our acquaintance with subjects. Hence, even if we are acquainted with propositions in the same sense as with subjects, there would seem to be another relation to them which is also called knowledge, but which, to distinguish it from other uses of the word, may be called understanding. Finally all judgments involve universals. And it seems clear that here too mere acquaintance is not enough, you must understand your universals. This does not of course imply analysis and definition; it is only because some universals are understood without definition that others are understood by definition.

Let us apply these distinctions to the question under discussion. The reason why no appeal to such words as 'now,' 'this,' 'my,' etc., satisfies the intellect is not because the

notions involved are incommunicable. For, if this were all, each one of us at least, since we profess to know what we mean when we use these words, could satisfy his own intellect with these notions. The reason is that though the words stand for something what they are used to stand for is not a universal. One result of this of course is that we cannot communicate what they stand for, but the important result is that they stand for what cannot be understood even by each man for himself, just because it is a particular and not a universal or proposition. (It is of course no answer to this that such words *also* stand for universals, and that, in this sense, the notion is intelligible and communicable. For they are then ambiguous and are no longer names of particulars.) And I might put what I take to be Mr. Bradley's difficulty as follows. The intellect wants to understand Reality as a whole. But it can only understand such things as universals and propositions; and we know that Reality does not consist wholly of such things. I may add that the intellect would not be satisfied in this sense even if it could know reality perfectly in the sense of being acquainted with it and knowing all true propositions about it. For this is an attempt to fill a qualitative gap quantitatively. Moreover the notion of perfect knowledge in this sense is invalid, because the totality of all true propositions is a vicious one.

I hasten to say that this may very well not be what Mr. Bradley means. And, at any rate, the reference to reality as a whole does not seem to me essential. Let us take a perceived object and make as many judgments as we like about it; such as, This is red, this is triangular, etc. In a sense we are not going outside what we are acquainted with in perception, and, in a sense, we are continually getting to know it better as we make more and more judgments about it. Yet we know that we can never exhaust the 'this' by such a process. And this does not merely mean that the detail is infinite and that we cannot therefore in practice exhaust it; what is left is not merely a mass of more of the same kind as what is taken. When we analysed we wanted (*a*) to get what we can understand, and (*b*) to get nothing but what is already present in what we were acquainted with at the beginning; for it is *that* which we set out to understand. And the difficulty is that what we understand (the universals) was not *as such* present in what we were acquainted with; how then can we say that we end by understanding that very thing which we began by being acquainted with? The predicates discovered by thought are not parts that were present all along in what I am acquainted

with; rather it is related in a certain way to them, is an instance of them. So our attempt to analyse x and understand it has only led us to a larger whole of which one element (x) remains unintelligible; and the other elements (the universals) are intelligible; whilst the constitution of this whole, as of all others, cannot be fully understood by thought. To put the last difficulty more explicibly. Suppose I am aware of a whole, and, as we say, analyse it into a, b, and a relation R. I judge the proposition aRb. Then either this does or does not contain all the same terms as the original whole. If not, how can I be said to understand that whole? But, if so, still the terms a and b and the relation R constitute a a different unity as forming the proposition aRb, and as forming the perceived whole, which is not a proposition. What I started to understand was the perceived whole; what I end by understanding (in so far as I can do this while the subject remains merely given) is the propositional whole.

I do not know whether I have really followed Mr. Bradley in all this. The difficulty to me seems to be that we want to understand everything as we can only understand universals, and that there are other things than universals. Our failure to reach this goal should not I think be expressed by saying that no judgment is quite true, when partial truth is ascribed to all propositions. The word in the one use has a totally different meaning from what it has in the other; *no* proposition whose subject is not a universal is *at all* true in the former sense, and no degree of truth in the latter sense brings it any nearer to being true in the former.

There are many other points in Mr. Bradley's book with which I should have liked to deal had space permitted. Especially should I have liked to consider the question of finite centres, which, at present, I doubt if I understand. It would be impertinent for me to praise a work whose author's name is a sufficient guarantee; but I ought to add one word of personal explanation. I have probably often misunderstood Mr. Bradley. I have been brought up in a different philosophic atmosphere, and I know how easy it is to take one's metaphysical prejudices as self-evident principles, I have done my best to avoid this; but I can hardly hope always to have succeeded.

IV.—THE PHILOSOPHY OF SAMUEL BUTLER.

By Robert F. Rattray.

Introduction.

It is only right to say that the essential and significant discoveries and arguments in this philosophy were published some seven years before Butler's *Life and Habit*, namely in 1870, by the famous physiologist and psychologist, Prof. Ewald Hering, in his Presidential Address before the Imperial Academy of Sciences at Vienna,[1] so the theory on which this philosophy is based is rightly called the Hering-Butler theory. But Hering did not pursue this line, and it was quite independently that Butler made the discoveries and arguments and followed them out, and then supported them from the scientists themselves, and with argument, in book after book. He acknowledged Hering to the full, immediately after having discovered him and thereafter.

The philosophy of Samuel Butler as such has been and is gaining ground in significant fashion. Prof. Freud of Vienna has published psychological doctrines strikingly similar to the Hering-Butler theories—not to speak of the similarity of the views of Prof. Bergson and others:[2] and the widespread attention these have recently aroused may rightly swell the interest in our sadly neglected Samuel Butler. Mendelism is a witness to such resurrections. So a resumé and exposition of Butler's philosophy may be welcome.

Butler is more immediately concerned with the philosophy of nature, in a special sense—specifically, with evolution. He is a vitalist, thorough-going. A summary of his views on evolution, written by himself, is to be found in *Essays on Life, Art and Science*, in the essay entitled "The Deadlock in Darwinism". This essay contains his reply to Weismann: the article being a reprint from the *Universal Review*, 1890. The chief book by Butler devoted to evolution is *Life and Habit* (1877). This contains the gist of Butler's whole doc-

[1] *Das Gedächtniss als allgemeine Funktion der organisirten Substanz.*
[2] Notably Prof. Ward.

trine. He published several other books reviving and maintaining Buffon, Dr. Erasmus Darwin and Lamarck against Charles Darwin. Let no one think that Butler was not well read in his subject—time has already told strikingly in his favour and against his opponents. For Butler's position in the world of science, see the Introduction to *Unconscious Memory* (one of Butler's books),[1] 1910 ed. by Prof. Marcus Hartog, where the imposing list of 'Butlerians' will be found, and that has been added to since 1910.

In expounding Butler I will stick to Butler's own words so far as I can in loyalty to my task and my interpretation. It is no easy matter, I have found, to epitomise Butler from his books. One is forced to use his own words largely, for one feels that they fit with the cleanness won in the struggle for existence by the fittest survivors. Nevertheless, one must fit in the various parts in a unity of presentation, which was not Butler's task, and improve here and there the manner of presentation for our purpose. The difficulties of my task are now, perhaps, evident. The following is the result of my endeavour:—

Exposition of Butler's Philosophy.

Anatole France has pointed out that if the Universe were the size of a nut, everything being in proportion, no one would know the difference. In fact, things have no size except in relation to each other. There is no such thing as size in the absolute sense. Shakespeare was indeed right when he made Hamlet say (and it may have been this that suggested the simile to Anatole France): "I could be happy in a nutshell," and when he made him say the similar thing, "Denmark's a prison". The microscope makes the Universe larger. The Universe is indeed a fairy world, expanding according as you look.

'The fallacy of size'—namely, the belief that size is absolute—is one of the greatest obstacles to our understanding the Universe. *Space is infinite in the atom as well as in the Universe.* It is simply in-finite.

Now what we have just sought to do with space or size, Butler's philosophy seeks to do with consciousness—to show that it extends infinite in area throughout the Universe even in the apparently smallest things. If a thing is very, very small, we find it hard to believe that it can be very complex, forgetting that it is only small relative *to us*, and if we should

[1] Needless to say, this essay is not an adequate substitute for Butler's books.

get sufficient evidence that it is very complex, we ought to believe that it is so, even though we cannot *see* the intricacy of its structure: it may have an intricacy which is not *visible to us*. Now science produces such evidence. Butler produces such evidence of a special kind. As a result of his philosophy, he finds God working through human agents, as it were, where mechanism is generally thought to rule. He finds an inside to the Universe, which is one and continuous with the 'inside' in us. He is thus a pantheist, in a sense. But he makes all this probable to our minds by logically connected chains of reasoning in touch with facts constantly. It justifies most startling old philosophy which we would like to believe in, but which we have not dared to believe in really, before; it justifies religion by this logical and factual argument.

The argument will be a long and close one, but the reward is worth following it.

First of all, Butler draws special attention to the fact that we are 'unconscious' of vast quantities of actions, psychical as well as physical, which we habitually perform. Such actions are dependent on series learnt by memory—or 'learnt by heart,' as we say. To repeat an action unconsciously, the series must be gone through, memory being dependent on 'environment' to bring out the series. Such series, however, are epitomised greatly. These 'unconscious' series can become conscious more or less, in the case of disturbance of the environment which is requisite to the 'unconsciousness' of the series.

There is a general law of consciousness as follows: Every thing, before we know it, we are unconscious of; then we become conscious of it, and as we grow to know it better we become more and more conscious of it *until a point is reached beyond which familiarity makes us less and less consciously attentive or attentively conscious of it* (unless this process is stayed for a time by effort of will). "Extremes meet" in "unconsciousness". When our acquaintance with a thing is so familiar that we are 'unconscious' of it we know it 'in our sleep and blindfold'. But we remember it, demonstrably. We thus remember more than we remember remembering. But we remember best, in the sense of *consciously* remembering, things that we do not know so well as we know these things.

'Unconsciousness' covers high products as well as low. It covers old habits in our experience and also ancient 'biological' habits—the functions of our bodies which are

'instinctive'—the upright position, for example, swallowing, breathing, the circulation of the blood, largely. Butler raises the question, May all be due to habits at one time or other consciously acquired? He asks us to notice the three following facts:—

I. That we are most conscious of, and have most control over, such habits as speech, the upright position, the arts and sciences—which are acquisitions peculiar to the human race, always acquired after birth, and not common to ourselves and any ancestor who had not become entirely human.

II. That we are less conscious of, and have less control over, eating and drinking, swallowing, breathing, seeing and hearing—which were acquisitions of our prehuman ancestry, and for which we had provided ourselves with all the necessary apparatus before *human* history began, but which are, biologically speaking, recent.

III. That we are most unconscious of, and have least control over, our digestion and circulation—powers possessed even by our invertebrate ancestry and, even biologically speaking, of extreme antiquity.

Let it be noted, too, that disturbance or departure, to any serious extent, from normal practice tends to induce resumption of consciousness, even in the case of such old habits as breathing, seeing, hearing, digestion, and circulation of the blood.

Now it is an axiom as regards actions acquired after birth that we never do them automatically save as the result of long practice.

Breathing is an action acquired after birth. It is acquired generally with some little hesitation and difficulty, but in a time seldom longer, as we are informed, than ten minutes or a quarter of an hour. There would seem to be a disproportion here between, on the one hand, the extreme intricacy of the process and, on the other, the shortness of the time taken to acquire the practice, the ease and unconsciousness with which its exercise is continued from the moment of acquisition. It looks like the repetition of a performance by one who has done it very often before, but who requires just a little prompting to set him off, on getting which the whole familiar routine presents itself before him and he repeats his task by rote.

Is it so with a baby? Let us see.

Butler's argument is that the baby did learn to breathe—but in the bodies of its remote ancestral antecedents, that the baby is one and the same person as each and all of its ancestors, through whom this continuous personality has

gone, in the same sense as the man of eighty is the same person as the embryo out of which he grew the man of eighty, science tells us, has passed through several bodies in his life-time, from cell to cell—and this person has been repeating the performance of learning to breathe whenever he finds himself at the stage in the evolutionary process where 'learning to breathe' is called for, but the age-long repetition has facilitated the process enormously: indeed it is repeated *in epitome* merely. So the 'Law of Recapitulation' tells us that every human embryo has gills for a time, a tail for a time, and hair on its face for a time—going through in epitome the history of its evolution as an animal roughly. (Roughly, we say, because sequence may be altered and then become regular in its altered form.) Habit becomes unconscious. Is it not true that the older and more confirmed the habit, the more unquestioning the act of volition until, in the case of the oldest habits, the practice has so formulated the procedure that on being once committed to such and such a line beyond a certain point—the polyhedron, to use Prof. James's simile, heels over to another face—or phase—and with ever quicker certainty, until it eludes observation altogether? Life goes in curves of attention, which correspond to curves of consciousness, of memory (consciousness is memory of things present, so to speak, memory is consciousness of things past). As the phenomena are repeated through memory they are epitomised. Hence the more recent bulk the more largely in 'the outer man'. The Law of Recapitulation applies to the whole of consciousness, of memory, because the amount of attention is limited. The curves are cumulative in this way. Apparent simplicity or smallness may cover intricacy—it depends on the number of graph-waves, so to speak, represented under the larger graph-waves; as in the nervous system, the ability of the nervous system goes in proportion to the convolutions.

The Law of Recapitulation extends beyond the womb, says Butler. Reproduction implies beginning at the beginning and going rapidly through the whole evolutionary process up to the point where, Anaximander acutely saw, a method of reproduction was evolved which made child dependent on parent. This corresponds roughly to the beginning of the human stage in evolution. We recognise birth as the beginning of consciousness roughly, but this is arbitrary and is really based on the fact that the born babe troubles society *in propria persona*, but the unborn does not. Infancy is as the dozing of one who turns in his bed on waking, and takes another short sleep before he rises. 'Con-

sciousness' begins with the stretch of evolution with which the 'embryo' is least familiar—in the case of man, roughly at the 'human' stage. The successive environments set going the psychological process which issues in actions. The Law of Recapitulation is due to ancestral memories, according to Butler.

Suppose a musician is playing and stumbles on to playing a *piece* which he cannot identify. Later he is at a stack of his music and comes across the score of the piece, and finds that he must have learnt it early in his career as a musician but had forgotten. This is an analogy for Butler's argument—the Law of Recapitulation being the musical score.

The fact that we cannot remember behind the time when we were two years of age, say, does not make us believe that we did not exist before then, or that we could not feel pain before then, or express pleasure, or, in short, that we were not conscious in some way. What we remember *really* comes out only like the proof of the pudding in the actual realisation of it. 'Which sock do you put on first in the morning?'—this problem reveals to us the fact that we must go through the performance in order to find out what we do do: and this is clearly a case of memory, in our sense, become subconscious.

Ancestral memories are almost accepted now—not merely through literary men like R. L. Stevenson, but by psychologists like President Stanley Hall and Prof. Freud. "The childhood of the race" is recognised as more than a mere metaphor. The juvenile delight in games and stories of adventure, etc., points back to "the childhood of the race". The way in which we grow our bodies is, according to Butler, due to inherited memories of the very ancient kind. On this line, puberty and wisdom teeth, for example, receive explanation, and what other explanation of these phenomena is to be had? The only alternative to Butler's view is Mechanism —as Descartes saw and had the courage to state boldly his alternative—and to reply "mechanism" to this question is to think of the gramophone and forget the infinitely more wonderful gramophone of the mind, which was prior to it.[1] Our body and mind are but tools indeed, as Butler was never tired of pointing out, but they are more controlled of the spirit than tools are—the spirit of life is not a product of mechanism, but mechanism is a product of life.

But are these memories real *memories*? *Are* they connected

[1] Butler has himself given the best argument for Mechanism, and thus satirised it, in *Erewhon*.

with consciousness?[1] Apparent unconsciousness in any creature, no matter how small, is no proof of the absence of stored-up, high-water-mark consciousness of the kind dealt with above as against the actions such a creature may exhibit which are inexplicable on any other ground. Smallness is purely relative, and the fact that a thing does not behave exactly as we behave is far from proving that it does not behave. Moreover the *lex continui* forbids us to deny continuity of *consciousness* between any human being and all its previous stages in evolution whatsoever. We are conscious, and we cannot fix a real, definite time at which we became conscious, and it is a logical impossibility to derive consciousness from that which is absolutely unconscious. The threshold of consciousness is purely elusive in time as well as in space. And what is true of an hour or two after birth is true of an hour after birth, and so to an hour before birth, and so on, back and back.

How is this continuity of personality throughout time possible? Darwin's doctrine of pangenesis meets the case on the physical side, and Wundt's law of 1896 we may apply to this and say roundly that every physical process has a corresponding psychical process. 'Anthropocentricity' is the vice as much of the scientists as of the idealists, only with the former it is centrifugal. The fact that a thing does not behave exactly as we do does not prove that it does not behave. It is interesting to inquire why we admit animals to varying degrees of consciousness in our thought about them. One is almost ashamed to find that we only credit them with having the conscious psychological processes which we ourselves find very easy to follow, or perhaps rather, which we find it absolutely impossible to avoid following, as recognising too great a family resemblance between them and those which are most easily followed in our own minds to be able to sit down in comfort under a denial of the resemblance. Thus, for example, if we see a chicken run away from a fox, we do admit that the chicken knows the fox would kill it if it caught it. But how about certain other animals? Let us take a baby for example. The fact that it does not behave exactly as we do does not prove that it does not behave. The fact is that the baby has gone to sleep, or all-but gone to sleep, on the already infinite repetitions of the Law of Recapitulation, in its wider sense. It grows 'in its sleep and blindfold'. We are probably never so busy as when we are babies before the age of two years, say, learn-

[1] This is the question at issue between Butler and Semon. See the latter's *Die Mneme*.

ing to do the things we now do constantly. So a hen's egg is the chicken in some sense—probably, again, at its highest activity—making flesh, bones, feathers with nothing but a little warmth and the white of an egg to make them from. Even a stone, science tells us, so far from being inert, is really a limit of motion, its particles darting hither and thither with inconceivable rapidity.

'The fallacy of size' as we have pointed out above is one of the greatest obstacles to our understanding the Universe. If a gigantic man were looking down on the earth, how should it appear to him? With the help of a microscope and the intelligent exercise of his reason, he would, let us hope, ultimately conceive the truth. But he would at first put Covent Garden Market on the field of his microscope and write about the unerring "instinct" which led each costermonger to recognise his own basket or his own cart.

The fact that the amount of matter passed on from parents to offspring is very small—this fact is no bar to our believing that it can transmit memories of high complexities in epitome. Recent theories of matter have familiarised us with the fact that we must escape the fallacy of thinking that small things are *absolutely* small and we must regard matter as very complex in structure, capable of very complex organisation, although the piece of matter may be very, very small indeed.[1] Thus the smallness of a baby or an embryo, or even of ovum and spermatozoon is no bar to its being alive and working.

On the other hand, the fact that spermatozoon, ovum, embryo, baby *are* small is an explanation, in Butler's view, of the fact that we do not 'remember' our previous lives in our ancestors. In our present life we remember of our experience very little indeed—demonstrably. What wonder that the *details* of our daily experience, which alone would give us 'memory' of a previous life, should find no place in the small epitome of them in ovum and spermatozoon, especially as these two together strike a compromise between the experiences they do remember, mostly. A memory inherited

[1] Hering's 'vibration theory' of the action of the nerves makes Butler's and his own theory of 'memories' extremely plausible on physical grounds—see *op. cit.* and Butler's translation of it and comments in his *Unconscious Memory*. For recent support of this vibration theory, see *The New Realism*, essay by Prof. Holt, the psychologist of Harvard, p. 322 and footnote, where older and distinguished support of such a view is quoted. Prof. Holt seems unaware of Hering's Address referred to, and I beg to disown the main thesis of Prof. Holt's essay and of the New Realism. Hering's vibration theory may be extended to a theory of matter of the highest usefulness, in my opinion.

must be deeply impressed in the organism if it endure through the busy and difficult task of reproduction—a task of *extreme* difficulty, let us remind ourselves, and probably more difficult, in the depths of subconsciousness, than we can possibly imagine. What wonder, again, that in general the details of our lives in our ancestors should not come up into 'consciousness' in our own lives, crowded as they are with their own experiences. At most only stray memories of this kind can so arise.

We demonstrate, says Butler, in our earliest infancy and later, that we have had experience of 'this kind of thing'—*i.e.* in growing our bodies, etc.,—before. This experience, which we must clearly have gained somewhere, was gained by us in the persons of our forefathers. We *actually have been* these ancestors. This continuity of action in parents and offspring throughout biology includes not only breathing, of course, but the circulation of our blood and the multitudinous other things too numerous to mention. Butler's thesis is that the apparently mechanical, 'instinctive' actions of ours were each and all at one time 'consciously' acquired in the persons of our ancestral predecessors, and have, through infinite repetition, become 'unconscious'.

How large a part of life may be 'unconsciously conscious' in this sense staggers conception. Science, for example, demands that we should imagine—to take an instance quoted by Butler from Sir John Herschel—that the colour red requires, to be perceived, that our eyes be affected four hundred and eighty-two millions of millions of times—yellow and violet, much larger numbers. And it is of course the *difference* in frequency of the vibrations which affects us with the diversity of colour. Vibrations, then, must in some sense be 'unconsciously' *counted* by us, on this astounding scale, too: but surely they must be counted in some sense *consciously*. And all this must have been *acquired* in the infinitely long ages behind us. "What is the discovery of the laws of gravitation as compared with the knowledge which sleeps in every hen's egg upon a kitchen shelf?" asks Butler modestly.

Such ideas may sound mad but they are true and have very beneficent results, I believe. They end in giving us the belief in a living and intelligent universe for belief in a dead and fortuitous one. As Butler himself wrote of his own doctrine—and no one was better qualified to see the irony of it—"From the point of view of the law courts and everyday life it is, of course, nonsense, but . . . common decency in the palace of high philosophy where dwells

evolution. If we leave evolution alone, we may stick to common practice and the law courts: touch evolution and we are in another world; not higher, not lower, but different as harmony from counterpoint." But still in the most absolute counterpoint there is harmony, and in the most absolute harmony, counterpoint.

Hering writes: "Theories concerning the development of individual consciousness which deny heredity or the power of transmission and insist upon an entirely fresh start for every human soul as though the infinite number of generations that have gone before us might as well have never lived for all the effect they have had upon ourselves—such theories will contradict the facts of our daily experience at every touch and turn". One of the blights we have inherited is the *tabula rasa* view of the mind, which is deeply ingrained in our thought. If the mind is not a *tabula rasa*, there is continued psychological indentity through the generations, or words have lost their meaning.

Continuity *of personality* between parent and offspring is indisputable, and yet it has been amazingly neglected. When we inquire into the matter we find that we are baffled in trying to delimit individuals in this relation—and how far does this relation not extend? A hen is only an egg's way of making other eggs,—but grandparent fowls may be contemporary with their grandchildren eggs: they have become eggs and fowls and remain themselves never the less. So elusive a thing is personal identity! We can feel our own ancestors in ourselves: we know them and feel them, so to speak, whether we know them or not. Eugenics is doing one good service in drawing attention to the importance of heredity, one-sidedly neglected in recent democratic talk.

The newly-born babe is really a part of its mother, and we can trace it back to ovum and spermatozoon. If we should suppose memory to be passed on from the parents in the elements constitutive of the impregnate ovum, we should nevertheless remember that a memory-series is dependent on environmental stimulus for its recall, and so the memory of the elements of the impregnate ovum would be recalled by their environment to the sequence of changes set agoing by such environment, so that the memory of the newly-born babe, for example, would revert, not to yesterday when it was in the body of its parent, but to the last occasion on which it was a newly-born babe and to previous such occasions —so it takes to breathing, sucking, etc. As its ancestors learned to breathe, etc., so does it, but their experience has

facilitated the process to such a degree that but little help is needed. And so through the Law of Recapitulation in its wider sense.

Now *it* is this creature, which was such and such ancestors, which remembers such and such past experiences unconsciously and repeats them now. It is one and the same creature throughout all the ramifications of its ancestry and descendents, through continuity of personality,—in the same sense, practically, as an old man is the same person as the embryo out of which he developed—the 'latencies' are there in the same sense. A result of this is, when we consider biology, that we find it to be biologically true that we are all 'bound together in the great bundle of life'—by such ancestral memories as we have in common, and these, it will surely have been seen, constitute the very stuff of personality *pro tanto*. Suppose, to put it shortly, there was a primordial cell. From it we are all descended: it differentiated itself into the manifold life of the world—birds, fishes, and animals in general. From the primordial cell to the place where, as animals, we branched off, we have memories *in common*. But moreover the primordial cell was all we all of us had to start with, and things which were identical with the same thing were identical with one another.

Butler at first only extended his generalisations to the organic world, but later he found that the "inorganic" world could not be separated from the organic. He came to see that every atom in the Universe must be regarded, in some sense, as living, and able to feel and remember—in however humble a way. Thus we should speak rather of 'the primordial atom' and include in our sweep ultimately the whole Universe. In this case, every thing and every body is the primordial atom of millions of years ago, in the sense above defined: this can be denied only on grounds which would deny that a thing is the thing it was yesterday.

The primordial cell has, so to speak, lived itself into succeeding generations of animals—generations of very complex kinds: species blend and have blended into one another—whole genera have become extinct, but the changes have always been 'evolution,' *i.e.* more or less gradual.

In each generation the primordial cell in its myriad descendent impregnate ova passes rapidly and 'unconsciously' through all the earlier stages of evolution, of which there has been infinite experience, but when it comes to the part of the course which is not so clear, it becomes 'conscious': still, however, where the course is plain, retaining 'unconsciousness,' as in breathing, digesting, etc. The primordial cell

may thus be said to 'live itself'—not as we live out our lives, as we think, living and living and living till we die—but living by pulsations, so to speak, which are the generations of animals; it lives so far in each animal and then goes into a new body there and throws off the old. But this is precisely what we do ourselves in the millions of single cells which constitute us, we are told. And what we have to do is to think of the separation between thing and thing in the world as an illusion in the same sense as it is an illusion to us that our personal consciousness does not hang together in one whole but is made up of millions of discrete consciousnesses. Psychology teaches that individuality is not a simple, single thing—its borders shift in a nebulous and indefinable manner. We, each of us, are not one personality but many personalities. All of us have our moods,—in which we are 'multiple personalities'. But, on the other hand, the personality which we do recognise as our one personality blends so imperceptibly into and is so inextricably linked on to 'outside' things (which nevertheless constitute it undoubtedly by every infallible test) that when we try to bring ourselves to book and determine exactly where an individual begins and ends, we are baffled. 'Individuals' are influenced by 'things' and 'forces,' which influences undoubtedly go to constitute them. The *Völkerpsychologie* of Wundt shows that language and other institutions of fundamental importance to constitute personality are social products. And all this is no doubt due largely to community of memories on which Butler insists. Von Hartmann worked out a theory of *Hellsehen*, arresting in it points of contact with experience, in which individuals are regarded as subject indefinitely to purposive influences from without. On the corporeal plane, parasites abound which constitute individuality, inasmuch as, for example, to drive men to the commission of grave crimes. Biologically, as we have indicated, individuals link on to each other through animal life and plant life and inorganic life. It is a question even for the scientists whether a true line can be drawn between the plant and the inorganic world—through crystallisation, for example. Certainly minerals are transmuted into living substance, and scientific opinion[1] may fairly be said to hold that the inorganic must be thought of as in some way or other alive. But it is a logical certainty that if the inorganic were not essentially akin to the organic, it would be impossible to connect them as orthodox science holds they are connected.

[1] *e.g.* Professor Schäfer's Presidential Address to the British Association, 1912; Loeb, etc.

It is only short-coming in thinking that makes people oblivious to the fact that "matter" itself must be regarded as essentially alive. In other words the logical choice is only between a dead Universe and a living Universe: a Universe which is pretended to be dead-and-alive, in this sense, will be spued out of the mouth of true thinking. So our argument ends in this, that life extends—through heredity in time past and *de facto* in time present—over the whole Universe, embracing all ultimately in its one power. The unconsciousness of the world is no proof of its being dead—on the contrary, it may, as we have seen, be a proof of its being very much alive. Where individuals begin and end is like a current in the sea—they join, but precisely where, no man can determine.

Prof. Ward, in his recent Gifford lectures, supports the view we have put forward, so far as he goes, in almost daring and revolutionary fashion. He resolves the world into an assemblage of subjective centres of feeling and striving. The objective world is simply the appearance of these monads to one another, and its fixed laws and stable arrangements have in reality been gradually evolved as a result of the behaviour of these individuals to one another in the struggle for the best *modus vivendi*. Prof. Ward quotes Mr. C. S. Peirce, the American philosopher: "Matter is effete mind, inveterate habits becoming physical laws". Prof. Ward repeatedly speaks of Nature as "plastic" in this sense, and adopts *natura naturans* and *natura naturata* as doctrine expressing his philosophy. "What is done, *natura naturata*—the decisions made, the habits formed, the customs fixed—constitutes at any stage the routine, the general trend of things, within which future possibilities lie. What is still to do, *natura naturans*, implies further spontaneity and growth: new decisions to be taken, fresh experiments to be made." [1]

The view we have put forward shows that the whole of Nature is 'designed,' although designed gradually by individuals of various sizes, largely short-sighted: but over all a guiding purpose is clearly traceable, which, though apparently cruel, in large degree, is yet largely beneficent. In the objective world, God is life, and our view sees the objective God vivifying and indwelling in all His creatures —He in them and they in Him. It sees every part and particle of the Universe as within the possible control of God. If it makes the Universe the body of God, it makes God the soul of the Universe. We may fairly ask with Euripides,

[1] And Prof. Ward has taken up Hering and the 'memory' doctrine.

Who knows if life be not death, and death, life?
(Quoted in *Gorgias*, 492.)

This is not our whole view of God, of course, it is only the objective one. We must regard the objective world as largely illusory, however real, but the subjective doctrine of God Butler did not go into at length, though it is clearly implied in his writings. We may just give a hint of it now.

Everything has both an inside and an outside. We, though composed, to our knowledge, of millions of individual cells—and they, no doubt, have their individual minds and individual worlds—have yet one inside and one outside to our life. May we not imagine, with Fechner, that we may ourselves be parts of a larger 'inside,' as we are parts of a larger 'outside,' of a being—or beings? No matter what our theory of matter may be as to what matter *is*, in every case we must always wait for the ultimate *substance*—"Vibration *of what?*" we ask: "In what does the force or energy inhere?" So any 'theory of matter' cannot tell us what ultimate matter is, except that it is ὕλη, substance capable of modification so as to be perceptible by us. We have no substance. As Butler quoted—

We are such stuff
As dreams are made on.

Nevertheless we are forced by logic to posit substance behind.

Anatole France's nut is the atom out of which has appeared the Universe. The substance (in the metaphysical sense) behind it is one and it is the same substance as we have behind us. It is God. The disorganisation of the atom into atoms and the reorganisation of atoms must therefore be regarded as *in some sense* illusory; inasmuch as the 'inside' unifies atoms apparently discrete. The telescope makes the world smaller and the microscope makes it larger, as Mr. Chesterton has pointed out, but neither can reach the ultimate. It is indeed a fairy world, expanding and contracting like a 'dissolving view' of a magic lantern. The indwelling God, in the sense which we have indicated, Butler believed he had proved. As the Chinese saying has it, the inside constitutes the vessel. "In Him we live and move and have our being"—such expressions of religion, the 139th Psalm, for example, are literally true, on this view. We who hold this view see God, if you will, in whatever we most delight in. We can express our

love to Him and have it expressed to us in return, in the caress bestowed on horse and dog, and kisses upon the lips of those we love. We can say with Mr. Chesterton that a chair is a kind of animal that allows us to sit on it, that the fire is an elf that serves us. The stillness of life which men say is not alive is like Aristotle's 'unmoved mover,' or the 'sleeping' top, or the Sleeping Beauty,[1] for that matter, or like the wheel that is going round so fast that it appears to be still and no wheel. We now know from science that the very stones speak of a limit of movement. All this is our life that is hid in God. "A man varies his movements because of failure or fatigue," says Mr. Chesterton, "but if his life and joy were gigantic, the very speed and ecstasy of life would have the stillness of death." Our life rocks between being and non-being, as Heraclitus saw, but it always comes to life. Our world is but the world of our self-consciousness: it is but a drop in the bucket of our real life: the rest is silence, for it is hid with Christ in God. The Universe is alive! and its soul is God.

[1] Nursery tales will be found to embody parables of Nature. Their origin is mysterious and remotely old and they are often prophetic.

V.—DISCUSSIONS.

PROF. PERRY'S REALISM.

I AM very sorry that my discussion of *Present Philosophical Tendencies* in No. 86 has not met with Prof. Perry's approval.[1] I regret this the more that my attitude towards 'realism' was not intended to be unsympathetic. For I have always valued it as a salutary antidote to the ambiguity, deceptiveness and destructiveness of the 'Idealism' with which we are afflicted. I discussed, however, points of difference rather than of agreement, because I recognised in Prof. Perry a philosopher who had really at heart the clearing up and not the evading of issues. I therefore concentrated on the three issues as to which there is most confusion in the philosophic world, *viz.*, what is the meaning of metaphysical realism, and how and where precisely does the common-sense realism we all affirm in our actions pass into metaphysics? what is the essential meaning of pragmatism? and what is the main tendency of James's philosophy? and only just mentioned others of the many interesting discussions contained in Prof. Perry's book. I hoped by so doing to elicit from Prof. Perry further elucidations of points that he did not seem to me to have made good, and in this hope I am glad to find I have not been mistaken. And it is rather with the aim of promoting further explanations from one whom I conceive most competent and willing to give them, than in order to attack his new 'realism,' or to confess to misapprehensions into which I cannot see that I have fallen, that I venture to set forth rather more fully some of the difficulties Prof. Perry's system presents to my eyes.

I.

(1) My initial difficulty is to comprehend why Prof. Perry should attach such inordinate importance to the philosophic controversy between (so-called) 'realism' and (so-called) 'idealism'. It has become for him (as for other 'neo-realists') an obsession which absorbs all other questions, in a way that seems neither fair to the others nor healthy for philosophy. Like Aaron's rod it swallows up all else. Now I would not for a moment question any philosopher's right to interest himself in whatever he pleases,

[1] *Cf.* No. 88.

but if he wants to interest others, he should at least give reasons for his partiality. In Prof. Perry's case the reasons (whatever they are) are not made sufficiently apparent to me. He merely seems to assume that philosophic self-respect is impossible until one has finally committed oneself dogmatically either to 'realism' or to 'idealism'. These he takes to be the only possible metaphysical beliefs about ultimate reality. But where is the proof of the urgency of this decision? *Prima facie* there seems to be no need to come to a decision about ultimate reality at all. If there were, how could most of us carry on the ordinary business of life at all, seeing that society does not hire us to be professionals in metaphysics, and we have not the leisure to be amateurs? We are forced therefore to get on, pragmatically, with provisional working views of reality. These are in fact used and acted on by all philosophers also, although they profess to despise them theoretically. They appear however to differ in kind, and in the methods by which they are established and conserved, from the theories professed by most philosophers. It is necessary, therefore, to show what is the *connexion* between these working beliefs and the more pretentious theories of the philosophers.

Moreover, even in theory, a case for metaphysical dogmatising has to be made out. Is it not possible to hold that a decision, in the present state of our knowledge, is entirely premature, and to reply to the dogmatist 'there will be time enough to make up one's mind about the nature of ultimate reality on the day of the last judgment'? Why then should it be assumed that either 'realism' or 'idealism' must be absolute and final truth, and that either the realist or the idealist must be able to prove his thesis? Why should we not remember that metaphysics are highly speculative enterprises in which it is unwise to invest one's whole capital, and which a prudent man takes to only with many reservations and grains of common-sense?

Especially in this case, where the controversial situation reveals a mass of paradoxes and pitfalls to the candid questioner. How can he shut his eyes to the fact that both 'realism' and 'idealism' are used in a highly ambiguous manner, and usually left undefined? Even if definitions of the terms implicated were to be had, they would be of little use, because neither party would accept those propounded by the other, so that the familiar device of 'proving' one's case by laying down a definition and refusing to discuss whether it applies to anything, here breaks down. Nay more, the disputants themselves are driven to confess that they cannot 'prove their thesis'. For no evidence exists which can decide in favour of either contention, nor any direction in which crucial experiment can be looked for. Should it not at least be proved, therefore, that either thesis is *worth proving?* To me the situation seems strongly to suggest that the issue is a false one, and that neither metaphysical 'idealism' nor metaphysical 'realism' is true, but that (as conceived)

both are unmeaning. Critical examination in detail points to the same conclusion, and to a solution which *ought* not to be called 'idealism' any more than 'realism' (*cf. Sub* (2)). At any rate I can see no occasion in this metaphysical dispute for any display of warmth or fanaticism, nor any reason for thinking that a philosopher who inclines to 'half-realism' or 'half-idealism,' with whole-hearted caution, is not more likely to be right than the 'whole-hoggers' who plunge into extremes.

(2) I cannot quite make out Prof. Perry's attitude towards 'the Ego-centric Predicament,' and observe that it has puzzled others also.[1] But I was, of course, delighted to read his unequivocal pronouncements that "nothing can be argued from" the Ego-centric Predicament,[2] and that he did "not pretend to escape" from its "embarrassments".[3] For the first was a point I made in *Riddles of the Sphinx* over twenty years ago,[4] while the second is one of my reasons for thinking that a formulation of the problem which is unable to extricate itself from this predicament is a mistaken one. Nor is Prof. Perry right in supposing that I attributed to him the audacity of arguing from the very embarrassment which his 'predicament' caused him to the truth of realism. He showed his 'embarrassment' far too clearly, and my point is rather that the predicament is and remains as embarrassing to metaphysical realism as solipsism is and remains to metaphysical idealism. But it does not seem to me to be proper merely to look this 'embarrassment' boldly in the face, and to pass on as if it did not exist. For though I admit that no argument for 'idealism' should be drawn from the 'predicament,' I cannot think that strictly nothing follows from it. It seems to follow that no evidence for a strictly transcendent reality can be obtained, and that such realisms as refuse to live without one are doomed to irrationality.[5] That is a pretty important conclusion in its bearing on the whole controversy, and its moral (to me) is that we should do well to mean by 'realism' something that is not absurd.

I find moreover some difficulty in understanding Prof. Perry's treatment of the Ego-centric predicament as a whole. Unless he regards it as somehow more than a refutation of a bad idealistic argument, why does it figure so largely in his pages? For if he (and I) are right about it, the argument for 'idealism,' based on it simply ceases to be relevant, and could be dismissed in a couple of lines. Yet I am loth to believe that it owes its pride of place simply to its jaw-breaking technicality. I have a lurking suspicion, therefore, that Prof. Perry imagines that by clearing

[1] *E.g.* Messrs. J. B. Pratt and C. I. Lewis, *Journ. of Phil.*, ix., 21, and x., 2.

[2] MIND, No. 88, p. 545. [3] *Journ. of Phil.*, x., 457.

[4] *Cf.* also *Proc. Aristotelian Soc.*, 1910, p. 221.

[5] Whether Prof. Perry's realism is one of these is not, perhaps, quite clear, and is a point which may be reserved.

away this idealistic argument he has somehow strengthened the position of realism. This would of course in a sense follow if 'realism' and 'idealism' were the sole alternatives, and he could appeal to quite a number of logicians who still teach that a hypothesis can be 'proved' by disproving all the alternatives one has thought of (or chosen to notice) up to date. But seeing that in this case a third alternative has been definitely formulated, which is *not* 'embarrassed' by the 'predicament,' it seems very unsafe to argue thus. And at any rate I think Prof. Perry would do well to explain away the verbal conflict which at present may be found in his saying both that the Ego-centric Predicament "throws no light on any question,"[1] and also that Berkeley's argument from it "calls attention to a situation which undoubtedly exists and that is one of the most important original discoveries that philosophy has made".[2]

But I pass to something more important, *viz.*, the 'correlation' theory of the relation of subject and object, which appears to me to be naturally suggested by the facts and not to suffer from the 'embarrassments' either of 'realism' or of 'idealism'. True, it has been claimed for the latter by idealists over-anxious to escape from the 'embarrassment' of solipsism. But why should Prof. Perry accept their claim, and even argue for it? Merely because by lumping it with more questionable forms of 'idealism' he can avoid discussing a theory it would be hard to refute directly? Or because, like others who have cultivated an absolutist temper, he instinctively shrinks from anything that smacks of relativity? At any rate it seems a clear abuse of language to call it 'idealism'. For surely on this theory neither subject nor object can claim 'priority,' each being meaningless without the other. And is not 'idealism' reduced to inanity, if it ceases to claim 'priority' for mind?

But let us consider Prof. Perry's argument about this unwarranted extension of 'idealism'. He asks how on the 'correlation' theory we are to discover what difference the correlation makes to the inferior substitute for an 'object' which the theory allows. But why should we want to know? If there are no objects except in relation to minds, and no minds except in relation to objects, the question is unmeaning. Has not Prof. Perry here assumed his own sense of 'object' and asked a question in terms of it? Again, he seems to think that because 'objects' are many and 'mind' is one, mind is a 'constant,' and that "to determine the real, as distinguished from the methodological place of mind in the world" forms an insoluble problem. But a 'mind' that can be properly said to be a 'constant' (in any but a verbal sense) is quite unknown to psychology, which has discovered that minds are even more fluid and unstable than 'objects,' and is unnecessary in any philosophy which has learnt from James that change is real and

[1] MIND, *loc. cit.*, p. 545. [2] *Present Phil. Tend.*, p. 129.

that reality does not connote rigidity. And why after all should we *wish* 'to determine the real as distinguished from the methodological' function of either 'mind' or 'object'? Why should not the methodological (*i.e.* pragmatic) reality be the only reality that exists? It is the only reality we can know we have, or can use in any science. Once more Prof. Perry seems to create a difficulty for himself by importing into an alien theory a sense which can exist only in his own. At any rate it seems clear that his failure to appreciate the third alternative presented by the correlation view leaves a large lacuna in his argument.

(3) My difficulties with the doctrine of the 'independence of the immanent' arise primarily from the fact that 'independence' is not defined, or at least that no evidence is alleged that anything (except the case in dispute) exists which conforms to its definition. Now this does not in the least surprise me, for when some years ago I endeavoured to discover what philosophers meant by 'independent,' I elicited no response[1]; whence it was easy to infer that 'independent' is one of those terms which are most useful when their meaning can be made to vary as required. Nor does Prof. Perry help me; for though in *The New Realism* (pp. 104-105), he candidly admits that the situation is discreditable, he does not go on to expound directly the meaning of 'independence,' but attempts a classification of the sorts of 'dependence'. This implies, what does not seem to be the case, that 'independence' is merely the negation of 'dependence'; also, what is more serious, that it is possible to give an exhaustive list of the forms of 'dependence'.[2] For if this be not achieved, it will be possible that an *unrecognised* form of 'dependence' is reckoned as 'independence,' and an illusory proof of 'independence' is thus generated. Again while I should applaud Prof. Perry's contention (*loc. cit.*, p. 114) that it is inconvenient to identify 'dependence' and 'relation' as 'idealists' have done, I yet fail to see how in the end he can get rid of the contention that the specific relation-of-an-object-to-a-knower may be, and is, a relation of 'dependence,' otherwise than by a dogmatic *Machtspruch*. And logically this would of course be a form of begging the question. He may, nevertheless, be right; only one would like to hear reasons. To assert therefore that "entities are independent unless they are proved dependent,"[3] is to go far beyond his brief; it can be inferred only (as in the similar case of the chemical 'elements') that entities which have not yet been proved dependent ('composite') *may be* 'independent' ('elementary').[4]

As regards the relation[5] of the 'immanent' to the 'transcendent' real, it would be a boon to have from Prof. Perry a full dis-

[1] *Arist. Soc. Proc.*, 1909, pp. 86-87, *cf. Studies in Humanism*, pp. 96-98.
[2] Despite *The New Realism*, p. 122. [3] *Loc. cit.*, p. 122. [4] *Ibid.*
[5] I now find that my doubts about Prof. Perry's 'proof' of 'independence' have been felt also by others, *e.g.* by Prof. Warner Fite (*Journ. of Phil.*, x., 546).

cussion of both these terms and of the meanings of 'transcendent'. It has always been supposed that metaphysical 'realism' involves the assertion of transcendent reals in some sense. But in what sense? And how do they 'transcend'? What moreover relates the 'immanent' real to its 'transcendent' double? Again no answers are extant, and again I must confess to failure to extract any.[1] Now it has long been supposed that in this doctrine of the transcendence of the real lay a fatal weakness of realism, and that the transition from the immanent to the transcendent formed for it a *mauvais pas* to be traversed only by a leap inspired by a pragmatic and desperate will to believe. If therefore Prof. Perry will kindly disavow the belief in a transcendent reality, he will do realism a great service and smooth down many scruples.

(4) I wish Prof. Perry would argue in favour of his conviction that knowing is inherently 'subjectivistic,' and that to view things 'knowledge-wise'[2] for ever debars one from recognising 'reality' in any sense. For nothing appears to me more plainly contrary to fact. All the 'realities' we talk and dispute about seem manifestly to emerge from processes of cognition and to be established in their status by being discriminated from the unrealities and illusions with which they were at first associated and confused. Now as Prof. Perry admits (as I understand him) that *our* reals are *known* reals, why should he continue to conceive their inevitable relation to a knower as a disparagement and a taint? Especially as he conceives himself to have shown that relation to a mind need not destroy an object's 'independence'. Surely his bias merely serves to discredit our truths, without exalting reality into any more assured position.

(5) As regards the positive evidence for Prof. Perry's realism he apparently agrees with his critics that most of his 'proofs' are not conclusive, although he does not explain why, if so, he rehearses them at such length. But he claims conclusiveness for the argument from the reality of the environment and the pressure it exercises on the mind. The facts here may be admitted, but his inferences from them seem disputable. Is the 'reality' implied in the biological method really such as Prof. Perry's realism demands, or is it the familiar 'pragmatic' reality used by so many of the sciences? Prof. Perry's contempt for 'half-realism' has prevented him from arguing this point, and so establishing his position; but until he has, it seems safer to suppose that a pragmatic reality suffices. This seems the more advisable as we have here got on to ground where philosophy demands a reinterpretation of common-sense realism and an advance beyond it. Its duty is to consider *all* the available facts, and not merely to select from them the materials with which a working view of the world can be constructed. Now it is a fact, though most philosophers shy at

[1] In the same paper in the *Arist. Soc. Proc.*, pp. 95-98.
[2] *Cf. Present Tendencies*, p. 217.

it, that there exist, alongside of the world we believe ourselves to know in normal waking life, an indefinite number of dream-worlds and 'hallucinations,' etc., which exhibit the same structural principles, and cannot be denied 'reality' in the widest sense of the term. The things we encounter in these experiences claim 'objectivity' and 'independence' in precisely the same way as the 'real' things, and are often very difficult to distinguish from them. Science, in its pragmatic way, may rightly neglect them, but every philosophic synthesis must accommodate them somehow.[1] For their existence raises the deepest questions. Is all experience 'of' reality, or is all reality illusory? It becomes possible, nay necessary, to doubt the finality of our chosen 'real things,' and to ask whether our real world also may not be a 'dream'. This doubt is of great antiquity,[2] and philosophers have never succeeded in disposing of it. I have endeavoured to expound its great theoretic importance in chapter xx. of *Studies in Humanism*, but it is still commonly ignored. Prof. Perry too simply ignores it, together with all the difficulties occasioned to realism by the whole realm of hallucinatory, illusory, erroneous and dream-experiences.[3] Once more, therefore, he leaves a lacuna in his case for realism.

(6) Finally let me ask Prof. Perry to explain wherein lies the inadequacy of the pragmatic (or 'semi-') realism we are so ready to concede him, and the superiority of the metaphysical realism which seems to land him in so many avoidable difficulties.

II.

In discussing next Prof. Perry's treatment of pragmatism, I could not obviously here go into all the interesting questions he summons me to answer, even if I had not repeatedly attempted to answer them elsewhere. I must pick out, therefore, a few conspicuous points, where his account seems to me to need revision.

(1) I cannot help regarding it as rather a pity that he did not recognise 'the strict and limited' pragmatism he just mentions on page 213 of his book, as the root of the whole matter, and show how all the other pragmatist contentions naturally grow out of it. This would have bestowed upon his account a unity and connexion which at present it lacks. But I suppose the temptation to conceive pragmatism metaphysically, instead of psychologically and logically, and to force it into the categories of 'realism' and 'idealism,' proved irresistible.

(2) Had he avoided this error, he would easily have seen his

[1] *Cf.* James, *Psychology*, ii., 291. [2] Prior to Plato, who mentions it.

[3] As has been duly pointed out by Prof. Lovejoy in *Journ. of Phil.*, ix., pp. 683-684. Prof. Perry's reply (*ib.*, x., p. 460), that such considerations are a difficulty to every sort of philosophy and only point to scepticism, is an attempt to drive out one bogey by another. Nor does it seem to me sufficient. Besides it is not true, for (as I have shown) these facts can be fitted quite well into a 'correlation' view.

way through the puzzle about 'theory' and 'practice', and seen that the pragmatic criticism of the traditional doctrine is essentially *a denial of the finality of the distinction between the 'theoretic' and the 'practical' interests*, and that psychological interest forms the common measure of 'theory' and 'practice'. I have myself protested so often and so energetically that the distinction between theory and practice cannot be made absolute, because every thought was an act and even the most 'theoretical' assertions were made to gratify an interest, that I am ashamed to give a long string of references. But it is clear that this doctrine renders inadequate and irrelevant Prof. Perry's distinction between the "values which ideas have as instruments of the theoretic interest" and those which they have "through their service of other interests, such as politics, or through their subjective emotional effect," together with the whole argument based upon it.[1] For it follows that psychological interest forms a common measure for all values, which can henceforth *compete* with each other. As a fact we find that they do so compete extensively; a large number and great variety of satisfactions, which we are at first tempted to regard as wholly ethical, æsthetical, etc., do lay claim to truth-value as well, and this claim needs to be examined. But not in a sweeping *a priori* spirit which scorns to distinguish the specific cases. It is quite unprofitable to discuss such questions in the abstract, and apart from an actual context: no one can predict in a general way what values and satisfactions will triumph over what, nor yet what ought to; to decide any case it is imperative to know the particular case and its precise circumstances. Surely the failure of Martineau's attempt to group the 'springs of action' in a fixed order should have taught us this. All one can do as regards 'theoretic' truth, therefore, is to point to its 'limits'; neither one so uninteresting that no one could endure the toil of discovering, teaching, or learning it, nor yet one so deadly that no one could survive believing it, can permanently establish itself as 'true' in human eyes. That is not much, but it is something; the rest belongs to the world of action and real knowing. I may add that the question of *what* 'theoretic' truths are at present approaching these limits, and so verging on extinction, is a question of fact: but I fear a good many of them might be discovered in philosophy.

III.

In Prof. Perry's exegesis of James I must confine myself to two points: (1) The first concerns the nature of James's 'realism'. Here Prof. Perry's cue is to distinguish sharply between James and the other pragmatists and to read his own realism into, and out of, James's works, and especially the paper on "Does Consciousness Exist?" His difficulty is that James has explicitly

[1] MIND, No. 88, p. 544.

repudiated the attempts to separate him from his followers, and declared that the apparent differences merely meant that he, Dewey and I were travelling to the same point by different routes.[1] Now to settle this dispute it may ultimately become necessary to go critically into the meaning of this one paper and of Prof. Perry's interpretation of it. But at present it will probably suffice to point out that Prof. Perry is on very unsafe ground, because he is appealing to a very tentative and relatively early work of James. I do not know when, and *à propos* of what, "Does Consciousness Exist?" was written, but it was originally published in the *Journal of Philosophy* for September, 1904. It is thus not only earlier than *The Meaning of Truth* (1909), but also than *Pragmatism* and *Studies in Humanism* (both 1907), while the fact that Prof. Perry chose to republish it in the last of the volumes of James's essays which he edited (and from which the important California Address, which baptised 'Pragmatism' and has long been unprocurable, is most strangely and inconveniently omitted), clearly does not render it superior in authority and posterior in doctrine to these works, though it may mislead a careless reader. It is more probable, therefore, that this essay represents an experiment in thought that was not persevered in, and I doubt whether James himself would ever have republished it as it stood. In case of (real or alleged) conflict, therefore, with later, maturer and more explicit expressions of his mind, it would seem to be most unsafe to rely on one's interpretation of its doctrine.

I may mention further that the review of *The Meaning of Truth* in MIND (No. 74) was read, modified and approved by James himself before publication, and that I had submitted it to him because I felt that he might think I had urged the irrelevance of metaphysics too strongly. This seems to me to create a certain presumption that the criticism of metaphysical realism which the review contains was not repugnant to him; while the fact that no realist has so far replied to it naturally inclines me to the belief that its argument still holds.

(2) My reason for questioning Prof. Perry's account of James's psychology is simply that he is far too much of a Russellian to accept it, or even to recognise the epoch-making originality of James. He has not seen that the notion of the psychic continuum is the very nucleus of James's system, and that by means of it he has antiquated the whole *Fragestellung* both of psychology and epistemology, and the weary controversy between 'empiricism' and 'apriorism,' which until then had been universally accepted from Hume. For the traditional views 'facts' were by nature 'loose and separate,' and the problem was how to connect them. Discreteness was conceived as the datum, and '*synthesis*' as the (semi- or wholly) miraculous function of philosophy, for the sake of which enormous masses of *a priori* apparatus were usually in-

[1] *The Meaning of Truth*, p. 242 f.

voked. James was the first to perceive that all this was fiction, and futile fiction, to be swept away. For him continuity was the true datum, and orderly plurality the achievement, built out of it by intelligent and experimental selection. It follows that the essential function of philosophic thought is the *analysis* of a (relatively) chaotic continuum. Philosophers in general have been very slow to perceive the importance of this, though of late it has been remarked repeatedly.[1] But there has long been one glorious exception among philosophers. Henri Bergson had the genius to perceive that a new metaphysic might be based on a recognition of cosmic continuity, and his philosophy may fairly be regarded as the legitimate and logical sequel of transplanting James's *aperçu* to blossom in the metaphysical sphere. That these two great thinkers should have lived to recognise, and to appreciate so nobly, their affinity is most natural and pleasing; but to convert the final efflorescence of James's thinking into an ambiguous support of one of the stalest of philosophic controversies is to reduce it to banality.

F. C. S. Schiller.

[1] *Cf.* D. L. Murray, *Pragmatism*, chap. ii., and H. V. Knox, Mind, No. 87, p. 233; No. 88, p. 561. [When this was written in October last I could not yet refer also to Captain Knox's admirable *Philosophy of William James* (pp. 34-35), which appears to me to have penetrated to the heart of James's thought and to have grasped in its full significance his conception of the relation between his psychology and philosophy.]

ARISTOTLE AND ABSTRACT TRUTH—A REPLY TO MR. SCHILLER.

THERE are two problems raised by Mr. Schiller's paper on 'Aristotle's Refutation of Aristotelianism,' MIND, N.S., No. 89, which may with convenience be discussed separately. First, do the discrepancies alleged between the various passages treating of the relation of universal to particular really exist? Secondly, is the weapon fashioned out of these more or less thorny passages useful for the purpose for which it is required—the belabouring of Formal Logic?

In answer to the former question I submit that Mr. Schiller has misinterpreted Aristotle's meaning throughout, identifying ἁπλῶς with 'in general,' in fact equating it with καθόλου. In particular I should point out that the passage in *Topics*, 115 *b* 12 f., has been miscomprehended. In the chapter (xi.) in which this passage occurs, Aristotle discusses the effect of πρόσθεσις and (to omit the earlier part of the chapter) arrives at the case in which something added (προστεθέν τι) to the original thing (τὸ ὑπάρχον) makes it to be in a greater degree what it was before, *e.g.* good. What really is *better* of course, is the whole (τὸ ὅλον 115 *b* 1) which results from the addition.

Next Aristotle points out that if a thing is capable of becoming better in virtue of some addition, then it is ἁπλῶς good, *i.e.*, irrespective of the addition, for if it were not good (to some extent) to start with, it could not be described as more or less good.

Now comes Mr. Schiller's passage—similarly if the thing (which may acquire some modification of character by the addition of something to it) has a character (*e.g.* good or right) κατά τι or ποτὲ or ποῦ, it has this character ἁπλῶς *i.e.* not in virtue of the addition. The reason given is similar to that given before (the case of more and less); if it could not have the character ἁπλῶς, it could not have it κατά τι or ποτὲ or ποῦ.

Obviously this passage has nothing to do with the relations of the I and A or E and I propositions. The τόπος in question is just the assertion that a thing of which you can say that it has a certain character on occasion or at a particular time or in some respect has that character (not *may have*) itself and not in virtue of some addition made to it.

Immediately afterwards follow the ἐνστάσεις as Mr. Schiller has narrated them. The two with which Aristotle deals at length are (1) the case of the Triballi, and (2) drugs being ἁπλῶς not beneficial

but yet beneficial in unhealthy localities. Now the form of the argument (115 *b* 24 f.) makes it perfectly clear that these two objections are refuted, and no doubt Aristotle could have produced similar refutations for the other cases. When we say that among the Triballi it is right to sacrifice one's father we are not really asserting that *in some places* it is right to do so; we say that is right *for the Triballi* wherever they are; *i.e.*, our alleged case of *ποῦ* is not a case of *ποῦ* but of *τισίν*. Similarly with the beneficial nature of drugs; it is not a case of their being *sometimes* beneficial but of being good for a person in a particular condition of health. In fact these two statements 'It is right for the Triballi to sacrifice their fathers,' and 'Drugs benefit the sick,' are examples of assertions *κατὰ πρόσθεσιν*, which may easily be true while a corresponding assertion made *ἁπλῶς* is false; as appears from the passages quoted by Mr. Schiller from the *Ethics*, and from the *Sophistic Refutations* also, if we may equate *κατὰ πρόσθεσιν* with the *ἐν μέρει λεγόμενον* of 162 *b* 38. But 'It is right to honour the gods' is a statement made *ἁπλῶς*.

Thus it appears that the point to be established and the objections refuted in this passage are practically verbal, and there is no ground for the assertion that Aristotle is here trying to distinguish 'general truths which are absolutely true and such as become false when a qualification is added'. No doubt he would have admitted that when the god honoured was a 'fiendish' god and the rites by which he was honoured were 'beastly' it was not right to honour such a god. All he asserts in this passage is, that when you say that to honour the gods is right, you mean that the predicate attaches to the subject as it is itself and not in virtue of some special reason.

But—it will be at once objected—is not this to assert that the proposition is an unconditional truth? By no means. We did not assert that it was always right to honour the gods, but that *in the circumstance in which it was right*, it was to the honouring of the gods that the predicate right attached. The truth then is only a 'general truth' in the sense of one which holds for the most part and not unconditionally. It is true indeed that Aristotle once opposes *ἁπλῶς* and *ὡς ἐπὶ τὸ πολύ* (*Phys.*, 198 *b* 6); but, as we shall see, there are reasons for his so doing. But it might be at once objected that if a predicate attaches to a subject in certain circumstances only, then it does not attach to the subject as such but to the *whole* composed of the subject *plus* these circumstances, and therefore not *ἁπλῶς*. The reply to this seems to be that when Aristotle talks of a predicate belonging *ἁπλῶς* to a subject, the circumstances in which it so belongs can only be described negatively as the *absence of those conditions under which it would cease to attach to the subject.* This seems to be certainly the case in what Mr. Schiller calls his most striking example, *Eth. Nic.*, vi., 1, 9, which had, however, been anticipated in *Soph. El.*, 180 *b* 9 f., the

case of the things that are ἁπλῶς ἀγαθα. Health and wealth are 'unqualified' goods, but not for the person who does not use them properly. The condition which makes them not good is the existence of such a person and the circumstances in which they are good consist in his absence. What is true ἁπλῶς, then, is what we should call an 'abstract' truth; and indeed with Aristotle κατὰ πρόσθεσιν is exactly the opposite of ἐξ ἀφαιρέσεως. Thus it might be 'abstractly' true that the internal angles of the triangles I draw are equal to two right angles, but in view of my bad drawing this might not be true. Nevertheless this abstract truth is not an unconditional truth, for it depends upon the condition of perfect drawing being fulfilled. Neither will it be in the ordinary sense a merely general truth (ὡς ἐπὶ τὸ πολύ), for it is not in respect of the embodiment of the figures in sensible lines which may sometimes be successful and sometimes not (in fact in this case probably never) that the mathematical proposition is true. An investigation of the way in which ἁπλῶς ὄν is used in the *Metaphysics* (*cf.* 1028 *a*.31 *et passim*) would, I think, confirm this view. 'Unqualified' being there is πρώτως ὄν, *i.e.*, being in the primary sense, but not being unconditionally. The distinction between ἁπλῶς and πῇ seems to be always that between abstract existence conceived as being primary and that concrete reality which is due to the mere conjunction with the primary of secondary and complicating characters. Often in the *Sophistic Refutations* the distinction seems to be extended in a popular and uncritical way to cases in which it can hardly be used philosophically. Thus it appears (163 *a* 11 f.) that ἁπλῶς the Ethiopian is black, but πῇ he is not *i.e.* in respect of his teeth! I suppose all that Aristotle meant is that from the popular point of view, however white his teeth are he is a nigger after all! But he admits that you get into difficulties when a thing is half white and half black. Which is it ἁπλῶς? Either both or neither. It is clear, however, that to Aristotle's mind all apparent contradictions between assertions made *simpliciter* and those that are *secundum quid* are due to our passing from the abstract to the concrete or from one level of abstraction to another, and that they do not affect the relations of propositions in the sciences, each of which is, so to speak, concerned with objects at the same level of abstraction, and in which judgments are at least intended to be unconditional truths, *i.e.* propositions not true merely *apart from* complicating conditions, but *whatever other circumstances may prevail.*

I come now to the second question raised, *viz.* the light this throws upon the theory of the syllogism. Mr. Schiller, pointing to Aristotle's admission that an 'abstract' truth does not imply the same statement made with a qualification or, to express the same thing in another way, is quite compatible with the falsity of the qualified statement, roundly asserts that we never get anything

else but such abstract truths as the major premises of our syllogisms, and that the conclusion is merely the same statement made subject to a qualification. Hence the major premise never implies the conclusion drawn from it and is quite compatible with the contradictory of that conclusion.

But mere assertion will not make things so. It is surely clear at least that the major premise of a syllogism is never intended to be a mere abstract truth, a statement true in general but not unconditional. We do not draw conclusions from 'abstract' truths unless we confuse them with unconditional laws (Aristotle's fallacy of *secundum quid*) and where we feel confidence in our inference we presume that the major premise is unconditional. If I believe that the assertion 'water under less than mean atmospheric pressure boils at under 100° C.' is an unconditional truth, it does imply (granting the minor) that 'water at the top of a mountain boils at under 100° C.'. The major premise of a syllogism then is not a statement made without the qualifications that are necessary to a belief in its truth. But neither is the conclusion an assertion in which a condition is added which was not specified in the major premise. To assert that this is so is an unjustified assumption. If I conclude that triangles X and Y are equal in area because they are both respectively equal in area to a third figure, their *being triangles* is no condition of the truth of this conclusion, which holds of them only as quantities. Similarly being at the top of a mountain is no condition of the truth of the proposition that water at the top of a mountain boils at less than 100° C. It is really irrelevant, since the same phenomenon would occur in a balloon, or in certain circumstances at sea level. Mr. Schiller's theory would involve the extraordinary doctrine that every determination of a particular subject is a condition of every assertion that can be made about it, *e.g.*, that X's red hair was a condition of his weighing twelve stones!

But no doubt Mr. Schiller will regard the preceding answers as trivial. He will probably admit that the syllogism *intends* to employ major premises which are unconditional and infallibly determine the particulars which conform to the conditions they prescribe whatever the other 'accidents' of these particulars are. He will reply that no such major premises exist (*cf. Formal Logic*, p. 206 f.). He might ask either of two questions, *viz.*—(1) How is it possible to *believe* that any proposition is unconditionally true without having first examined all the particular cases which the syllogism professes to infer from it? (2) How is it possible to *know* that any proposition is unconditionally true without having first examined the particulars? The conditions under which any truth holds are apparently infinite in number, and *any* fresh case may disclose one that is new.

The answer to the first question is easy. Why not? Many things are believed without any justification at all. As a matter of

fact Mr. Schiller seems to believe that it is unconditionally true that all Formal Logic is nonsense; yet since some systems of Formal Logic are, no doubt, still in the making (in spite of all his efforts), he cannot have examined all the instances. Further I am quite sure that, on taking up the next treatise on Logic, as soon as the cloven hoof of formality is detected, he will at once infer the erroneousness of the teaching of the new specimen. If none of the previous exponents of Formal Logic have been red-haired he will not, on learning that the new author is red-haired, feel compelled to read to the end of the book!

The second question is more serious, *viz.* how can we know propositions to be unconditionally true? I can suggest no better answer than the old one which points to mathematics and its self-evidence. This answer will not satisfy Mr. Schiller, but he must produce some better reasons for his dissatisfaction than those in his last article. It is sheer irrelevance to point out that mathematics, like other sciences, may at times and for special purposes employ assertions that are true only in the majority of cases. It may at times be convenient to overlook the exception of the limiting case of the tangent and assert that all the lines in a plane that meet a circle cut it in two points. Somewhat in the same manner physics might declare that all liquids expand on being heated, omitting the case of water below 39° F. There is indeed not so much justification for the assertion in physics for, so far as I am aware, the behaviour of water has not been shown to be a limiting case, *i.e.*, one coming at the end of a series of instances and marking the transition to another series and so capable indifferently of being ranked along with either. But, however that may be, no science confuses sweeping assertions that disregard limiting or exceptional cases with unconditional laws. Both classes find a place within the science which recognises the 'risk' in arguing from the former and the necessity of the conclusion deduced from the latter.

Again it is useless for Mr. Schiller to remind us of the well-known fact that words shift their significance, *e.g.*, that the application of the term triangle has been widened so as to include curvilinear figures. Though the verbal term may change its meaning, the 'term real' does not change its nature and the extension to fresh species of the word triangle does not falsify or render conditional the ascription of its properties to the rectilinear triangle. The conditions under which they hold can be enumerated.

So far nothing has been done to rescue the laws of physical science from the doom of conditionality. But we need not allow Mr. Schiller a complete triumph even here. Some physical principles even have been acclaimed as self-evident and hence unconditional. Apart from this the whole of the modern theory of induction is a serious attempt to show how the unconditional nature of physical laws may be established apart from their self-

evidence. In any case there is a strong presumption that many of them are unconditionally true, and even though the whole of the conditions, under which the laws of nature hold, may not in any case have been positively enumerated, we are often able at least to characterise them negatively. Thus, though we may not be able to state all the conditions which must be fulfilled when water boils at less than 100° C., we may know that the undiscovered conditions do not lie among optical or acoustical or psychical phenomena. We may know that the truth is unconditional *relatively to these.* Accordingly though the climber shivering at the top of a mountain says he wants his egg cooked in three minutes, we are justified in expecting that the water will boil cold in spite of him. Or, to illustrate from psychology, we may be unaware why it is true that philosophers are unpractical, yet we may know that the conditions under which this rule holds have nothing to do with Pragmatism. So (supposing the Pragmatists to have established their title) we should not feel justified in refusing to infer that a man was unpractical merely because he was a Pragmatist.

In this brief article I have not attempted to reply to all Mr. Schiller's questions. He asks what is the *formal* difference between a conditional and an unconditional truth. I am sure I don't know, and I cannot see why Logic should attempt to find a formal difference between them, *i.e.*, a difference in expression. As well might it try to find a formal difference between the true and the false. Mr. Schiller is continually trying to foist upon Logic the claim that it is able to do the work that properly belongs to the sciences whose procedure it criticises.

Mr. Schiller appeals to our sporting instincts by maintaining that 'real thinking' always 'takes a risk'. Now much of our thinking does take risks, *e.g.* when we work out the consequences of an hypothesis as yet unverified. We put our boat into the water to see if it leaks. But that is for the purpose of making it a better boat. Yet, when we have made it seaworthy, it may let us visit strange scenes and give us quite as much excitement as we want. Apparently, however, according to Mr. Schiller, when we do real thinking we go to sea in a sieve.

Perhaps I have not comprehended the real nature of the new non-formal Logic, but so long as it describes the nature of real thought only negatively, *i.e.* as being non-syllogistic, it is liable to miscomprehension. So far as I can see the only positive contribution of 'humanism' to the science up to the present consists (in the illustration of conclusions) in the substitution for the historic Socrates of the insular Smith (*Formal Logic*, p. 170).

G. R. T. Ross.

DR. MERCIER AND THE LOGICIANS.

Some of Dr. Mercier's remarks on logic and logicians call for a brief reply. Comments and criticisms which have small significance in themselves, and which receive no added authority from the philosophical reputation of the author, become of some importance when published in the pages of this journal. For my own part, I should not have undertaken the duty of reply were it not for the irrelevant and uncalled-for attack on Dr. Bosanquet. Such an attack, which is merely abuse without substantial criticism, Dr. Bosanquet could not be expected to notice, and a reply which comes from one who has had occasion more than once to disagree with Dr. Bosanquet may be more effective than praise from a pupil or a follower. As I am replying to the remarks on Dr. Bosanquet, I shall say something about the other matters under discussion.

On the subject of inversion, Dr. Mercier's remarks are not very relevant. If Dr. Mercier had read the discussion in which he takes part, he might have noted that Dr. Rieber,[1] on behalf of the inversionists, disclaims such "inversion silliness" as Dr. Mercier attributes to the logicians. Indeed, he might have inferred that, in Dr. Rieber's opinion, the inverse of the proposition "Every truthful man is mortal" would be "if there are any immortals, they will be amongst those who are not truthful men". Dr. Rieber might well say, in the words of Mr. Bradley, what I have written may be valueless, but my critic has no right to treat it as having no existence. So Dr. Mercier has not stuck the point of the needle into the table after all. As against the writer of the text-book (if only references were given and we knew who he was), Dr. Mercier may have scored a point, but he has added nothing to the discussion on the validity of inversion.

Once again, Dr. Mercier's remarks on logic as a game, coming from him, are foolish and meaningless. The phrase is borrowed from Dr. Schiller. In the setting of Dr. Schiller's book and from his philosophical standpoint, it is intelligible. Dr. Schiller, in calling formal logic a game, has a definite meaning and knows what he means. He is attacking the ideal of formal validity, the inferring of conclusions formally implicit in the premises. And it is immaterial to him whether the reasoning is syllogistic or otherwise. Dr. Schiller does not call formal logic a silly game and then

[1] Mind, No. 86, p. 259.

attempt to put forward an alternative formal logic which is, from his own standpoint, equally a game and equally silly. Let us note the following sentences from Dr. Mercier's table of contents: "Immediate inference is the explication of what is implied in simple propositions," "Mediate inference is the explication of what is implied in compound propositions". "An implication of a proposition is the result of contemplating from a different point of view the relation expressed in a proposition." The only way in which the game indicated by these quotations differs from traditional formal logic is that it is not played so well. Dr. Mercier's ignorance of contemporary logic and current controversy is thus not confined to inability to understand Dr. Bosanquet.

A depreciation of formal logic on pragmatist grounds as a false ideal and a meaningless futility is an arguable position. But it is not consistent, or even sensible, from one who attempts, however inadequately, to formulate new methods of the explication of what is implied in propositions. Every word of abuse of traditional logic is much more applicable to Dr. Mercier's own work. The hostile critic could well describe the style and manner of advertisement of Dr. Mercier's logic, in a phrase that will appeal to him, as quackery. But it is interesting and instructive to find Dr. Mercier, in effect, telling us himself that it is so. One might indeed go a step farther and inquire whether his book was intended as a skit on ordinary formal logic. The probability is, however, that the humour is of the unconscious variety, and that Dr. Mercier did not know, when he published the attack on logicians, the manner in which he was reflecting on his own work.

With this introduction, it will not be necessary to say much about the attack on Dr. Bosanquet. There is an element of spoof about most things, and again the most natural reply is a counter attack. It would be easy to inform him, in similar language, with a greater show of reason, that his profession, in many capacities are spoofing the public with a show of learning which will not bear investigation, and, moreover, are thereby increasing their own power and putting public money in their pockets. There is very little that is not open to a similar form of attack, and many people will be indebted to Dr. Mercier for pointing the way. The *fons et origo* of Dr. Mercier's remarks, I think we may assume, lies in the fact that he comes into philosophy from outside, and thinks that the philosophical world has attempted to depreciate and ignore his work by the usual conspiracy of silence. But it only renders it more difficult to discover real cases if such a tone is adopted without due and sufficient cause. Dr. Mercier has, however, chosen for attack the very last quarter where such attack is justified. It has been my lot to disagree with many prominent men, and, in published work, to point out (whether correctly or incorrectly it is not my wish to argue here), that a large number of philosophers and men of science have blundered badly on certain specific sub-

jects of which I have made a special study. The result has been, in nearly every case, no reply and the abandoning by them of the subject in dispute. Dr. Bosanquet alone, with regard to one small matter, has publicly and clearly discussed the points of difference. Had Dr. Mercier anything of substance to say in criticism of Dr. Bosanquet's logic he would probably have found Dr. Bosanquet willing to discuss. But the present outburst, abuse without substance, could only be ignored.

This is not the place nor the time to attempt to assess the value of Dr. Bosanquet's work or to explain the reasons for the deservedly high position he occupies in the philosophical world. The history and meaning of present-day metaphysical logic, of which Dr. Bosanquet is so prominent an exponent, again is not quite relevant. Nor do I propose to defend Dr. Bosanquet from the suggestion of occasional obscurity. But the charge of deliberate obscurity, and especially that of posing as a mental millionaire with a show of learning with the object of spoofing the public is one that recoils on the author. That Dr. Mercier does not understand Dr. Bosanquet is a statement we can readily accept. But Dr. Mercier would have been well-advised to have tried to treat Dr. Bosanquet in the manner in which opponents usually are treated, namely to say that he did not agree and state his reasons. Unless he can either do so or convince himself that Dr. Bosanquet's work is irrelevant, he would do well to leave logic alone, and to acknowledge that he has written on a subject he does not understand.

No subject and no branch of learning can be described as spoof the exponents of which are open to fresh ideas and treat fairly and honourably those who attempt to advance it, who are willing to criticise, and, if valid, to accept new ideas from whatever source they may come. I am not, however, disposed to deny that there is, in logic and in philosophy, a considerable element of spoof. But in so far as such is the case, the last man whom it is possible to blame, or to whom it is possible to impute such an intention, is Dr. Bosanquet. Moreover this same element of spoof is found in present-day science more than in philosophy.

H. S. SHELTON.

VI.—CRITICAL NOTICES.

The Problem of Christianity. Lectures delivered at the Lowell Institute in Boston, and at Manchester College, Oxford. By Josiah Royce, D.Sc. (University of Oxford), Professor of the History of Philosophy in Harvard University, New York. Macmillan, 1913.

This is a difficult book to review. It discusses a number of subjects and arrives at conclusions in each of them which, though in the author's view they are closely connected, may appear less so to those who are not prepared to accept his system *en bloc*. It will be quite impossible to discuss all of them (or indeed any of them) with the thoroughness which they deserve, and in such an account of them as is possible I shall venture to depart somewhat from the order in which they are treated by Prof. Royce himself.

Prof. Royce finds the "essence of Christianity" in the idea of salvation through love or passionate loyalty to a community—a community of persons who themselves possess this love to the community. The love that saves is, indeed, a love towards all mankind, but the precise good which the possessor of this love desires to promote in the objects of it is to make them members in the body which is united by the tie of mutual love. This idea is, it is admitted, only adumbrated in the teaching of Jesus Himself. Its full realisation is the great discovery of St. Paul and of the Churches which he founded. The distinguishing character of Christianity is that it is the religion in which this idea was for the first time, and is now, appreciated in the fullest degree. Though the community to which the Pauline Christian felt so passionate a loyalty was the actual organised Christian Church, the idea which lay at the bottom of this sentiment is, according to Prof. Royce, capable of being completely detached from any actual visible community. The Church of the philosophical Christian who accepts Prof. Royce's interpretation, is an "invisible Church," and it is never to become visible, or even (it would appear) any more visible than it is at present. And it is through union with this invisible Church that he is to obtain salvation. The following passages will perhaps give a somewhat fuller idea of Prof. Royce's position:—

"First, it is needful for me to point out that, despite certain stubborn and widespread misunderstandings, the Christian doctrine of

love, as that doctrine appears in the parables and in the Sermon on the Mount, involves and emphasises a very positive and active and heroic attitude towards life, and is not, as some have supposed, a negative doctrine of passive self-surrender. And, secondly, I must also bring to your attention the fact that the Master's teaching about love leaves unsolved certain practical problems, problems which this very heroism and this positive tendency of the doctrine make by contrast all the more striking" (I., 77-78).

"Critics, as well as mistaken friends of the Master's teachings, have supposed Christian love to be more or less completely identical with self-abnegation,—with the amiably negative virtue of one who, as the misleading modern phrase expresses the matter, 'has no thought of self'. Another modern expression, also misleading, is used by some who identify Christian love with so-called 'pure altruism'" (I., 79).

"Now, against such misunderstandings, many of the wiser expounders of Christian doctrine, both in former times and in our own, have taken pains to show that love, as the Jesus of the sayings and of the parables conceived it, does *not* consist in mere self-abnegation, and is not identical with pure altruism, and is both heroic and positive" (I., 79, 80).

"For the Jesus of the sayings not only rejoices in the divine love whereof every man is the object, but also invites every man to rejoice in the consciousness of this very love, and to delight also in all men, since they are God's beloved. The man whom this love of God is to transform into a perfect lover cannot henceforth merely forget or abandon the self" (I., 80).

"Every man, this self included, has just such an unique value, and must be so viewed" (I., 81).

"But now let us return to the relation of love to the services that one is to offer to one's neighbor. What can the lover—in so far as Jesus describes His task,—what can he do for his fellow-man?"

"To this question it is, indeed, possible to give one answer which clearly defines a duty to the neighbor; and this duty is emphasized throughout the teaching of Jesus. This duty is the requirement to use all fitting means,—example, precept, kindliness, non-resistance, heroism, patience, courage, strenuousness,—all means that tend to make the neighbour himself one of the lovers" (I., 85).

"Buddhism fully knows, and truly teaches, where the root of bitterness is to be found,—not in the outward deed, but in the inmost heart of the individual self. But what, so far as I know, the original Southern Buddhism *never* clearly made a positive part of its own plan of the salvation of mankind, is a transformation of the self, *not* through the *mere* destruction of the narrow and corrupt flesh which alienates it from the true life, *but by the simple and yet intensely positive* DEVOTION *of the self to a new task*,—

to its creative office as a loyal member of a beloved community" (I., 344. 345).

"It is of course also true that Jesus during His life had, as an individual man, taught a doctrine, and done a work, which made this first Christian community possible. In this sense it is correct to say that the man Jesus, in so far as He was merely an individual man, is the founder of Christianity. But when we say this, we must add that, so far as we know of the teachings of the man Jesus, they did not make explicit what proved to be precisely the most characteristic feature of Christianity,—namely, the mission and the doctrine of the Christian community itself. The doctrine of Christian love, as the Master taught it, is not yet, in explicit form, the whole Christian doctrine of life. For the Christian doctrine of life is a doctrine which is unintelligible apart from the ideal of the universal community" (I., 416-417).

"We are saved through and in the community. There is the victory which overcomes the world. There is the interpretation which reconciles. There is the doctrine which we teach. This, so far as we have had time, in these brief lectures, to state our case, is our philosophy, and this doctrine, as we assert, is in agreement with what is vital in Christianity" (II., 390).

These passages will by themselves fail to do justice to the force and freshness with which Prof. Royce develops this thesis. I have been obliged to leave out much of what he says about the nature of communities in general and the relation of the individual to his own community. The ideas are perhaps at bottom not quite so original as the author himself seems disposed to think. But there is abundant need for their emphatic assertion, and Prof. Royce's enforcement of them constitutes a very valuable protest against many of the misrepresentations of Christianity which are current both among theologians and among philosophers. Prof. Royce tells us that the extent of his Hegelianism has been exaggerated, and that he is now less of a Hegelian than he used to be. The protest is particularly important as coming from one who will at least command respect among philosophers of a Hegelianising tendency. In making the idea of community and of love to the community into *the* essence of Christianity, we certainly have a new and notable departure. For it is remarkable that, in spite of Hegel's insistence upon the community as the source of the individual's morality and spiritual life—in spite of his pushing (some of us will say exaggerating) the idea of the social character of Morality to such a point that (as has been said) there is no moral Philosophy at all in Hegel, but only political Philosophy—both the Master himself and most Hegelianising writers on the Philosophy of Religion make singularly little of the idea of the Church. This is no doubt largely due to the extreme individualism of Lutheranism—as compared with Romanism, Calvinism, and all the religious bodies which have originated in England. German Philosophers and Theo-

logians alike hardly ever seem able to shake themselves free from the Lutheran tradition. To most German Protestants the Church is little more than "the society for maintaining public worship," while to insist much on the importance of this one function of worship which is allowed to the Church is to many liberal Protestants a note of defective "spirituality". The extreme subordination of the Church to the State in Protestant Germany finds expression in such sayings as "The State is masculine; the Church is feminine". And it is chiefly among Germans and Germanising Anglo-Saxons that there has been any serious treatment of religious Philosophy or philosophical Theology. The idea that Religion is a little private transaction between "a man and his Maker" has sunk deep into the popular Protestant consciousness. Ritschlianism (in spite of Ritschl's own idea that the Church rather than the individual Christian is the object of salvation) is an extreme exaggeration of this tendency. It bases the whole evidence of Religion upon the impression made upon the individual believer by the picture of Christ's personality, and makes almost its whole content to consist in the personal relation thus established. Harnack, as Dr. Sanday has remarked, seldom uses the term "Church" without some note of disparagement, and the same may be said of most German Theologians before Troelsch, a writer to whom Prof. Royce acknowledges his indebtedness. The Mysticism which is now becoming fashionable in England—at the opposite pole of thought from Ritschlianism in other respects—agrees with it in this individualising tendency. The individual is supposed to discover God by his unaided reflection, and to enjoy an immediate vision of God which owes nothing to his religious community and its tradition. And idealististic Philosophers have strengthened the tendency by habitually speaking as if, in flagrant defiance of historical fact, the "mystical" type of "religious experience" were the only one.

Against these tendencies Prof. Royce's theory is at least a very welcome and much-needed protest. Whether you look at the matter historically or psychologically, Prof. Royce is to my mind wholly right. If we study the lives of the mystics themselves, we find abundant evidence of the large extent to which their environment explains the experiences which they themselves—or at least rather their undiscriminating admirers—are disposed to regard as direct communications from on high. And if we look at the particular history of Christianity, the latest research is making it more than ever plain that (however strongly we may assert that it was the personality of Jesus which created the Church) it is simply impossible to discriminate (when you come to details) between the sayings which are genuine utterances of Jesus and those which are due to the working of His spirit and influence in the Church. Indeed, in this matter I believe that Prof. Royce is even more right than he knows. He is, I venture to think, disposed to attribute a greater importance in the evolu-

tion of Christianity to the personal thought of St. Paul than is warranted by the facts. Theologians have too often written as if the ideas of Christians had simply stood still between the taking away of their Lord and the appearance upon the scene of St. Paul. Many of the ideas which are often associated with the teaching of St. Paul are much more probably due to the common consciousness of the primitive Church, though St. Paul doubtless gave them their classical expression in religious literature. To deny or ignore all this does not really add to the personal supremacy of Jesus; for Loisy is not far wrong in saying that the greatest thing that Jesus did was to found the Church. That this little body of little-educated Jews should have been able to originate such great ideas is the best testimony to the greatness of their Master.

So far I can follow Prof. Royce's central idea, and I would wish to speak with the utmost respect of the brilliancy and the deep ethical and religious feeling with which that idea is developed. His paper contains the best exposition that I know of the deepest essence of Christian morality, and the best reply that I know to the current misrepresentations of it as an essentially "other worldly" or "world-renouncing" doctrine—misrepresentations from which even Troeltsch is not altogether free. And yet I cannot but feel that there is considerable exaggeration in making this *the* essential idea of Christianity, whether we examine the matter historically or from the point of view of the present religious consciousness. If he had confined himself to saying that the idea of universal love—understood as he explains it—was the central idea of Christian Ethics, and that in the teaching of Jesus—not so clearly in that of St. Paul and the later Christian community—the right state of the soul was made to consist in this universal love, he would have been saying what was undeniably true. Prof. Royce has no doubt admirably expressed the difference between Christian love and the Buddhistic negation of self on the one hand or mere Utilitarianism on the other. It would, indeed, throw considerable suspicion upon Prof. Royce's claims to express what has always been the essence of Christian Morality if we were to suppose that such an interpretation of it was absolutely new. This it certainly is not. I would refer for instance to certain chapters of Seeley's *Ecce Homo* as containing substantially the same interpretation of Christian morality, if we put aside Seeley's assumptions about the actual meaning of the Kingdom of Heaven to Jesus Himself which could not now be defended. Nor indeed is what Prof. Royce says about the essentiality of the Christian Society to a true conception of Christianity any great advance upon Seeley's exposition of it, except that Prof. Royce has formulated it in the language of technical Philosophy and connected it with philosophical views about the nature of human society in general in a way which Seeley of course did not attempt to do. But

to make the idea of the Community into the *whole* essence of Christianity seems to me seriously defective.

In the first place when thus isolated from everything else in Religion and Ethics the idea of the Community tends to lose most of the characteristics which would attach any one to it. It is not, be it remarked, the idea of universal love but the idea of an actual community of people who practise this love towards each other which Prof. Royce regards as the essential element in Christianity. But why should there be this passionate attachment to a community which is not the community of the human race, and why this passionate desire to get other people into it? If the Christian Church had been nothing but a community attached to the idea of a community the attachment to it could hardly have been accounted for. Historically the bond of union between religious communities has invariably been attachment to a common body of ideas. No doubt this very idea that Salvation to be sought by loyal service to a community which is potentially co-extensive with mankind is itself one of the ideas which the Society possessed and was anxious to communicate to its members, and perhaps it is the most important of them. But it was not all. Religions invariably involve a theory of the Universe—a Metaphysic as well as an Ethic. Of course Prof. Royce may say that he happens not to believe in the particular theory of the Universe which the early Christians professed, and that he does believe in the ethical idea just described. He is no doubt entitled to dream of a society which has shaken off the early Christian Metaphysic but retains its fundamental ethical idea. But it may be doubted whether any society could inspire this passionate loyalty if attachment to this idea were its whole *raison d'être*. Even if it were, this ethical idea would be logically prior to the idea of the Community. In the history of Religion what we see everywhere is that the idea comes first, the community next. It is true that from the nature of the Christian idea the Community is more necessary to the realisation of it than in the case of other Religions. A Buddhist might be saved in solitude. A Christian cannot, if the Christian doctrine of salvation (as Prof. Royce interprets it) be true. But historically the ardour of Christians for their community was explained by their holding in common a number of other beliefs besides this belief in the Community. And historically the belief in a God of love and a supreme revelation of Himself through a human Personality and the doctrine of a blessed Immortality to be attained through loyalty to that truth were the strongest forces which attracted men to the community. In particular it is rather surprising that a thinker who grasps so clearly the importance of that new idea of Christianity which converted Morality into Loyalty to a visible and concrete community should seem to be so blind to the value of the equally new idea which identified it with loyalty to an ideal Being who was also an historical person.

Loyalty to the personal Christ has been (and surely is) even a more vital element in Christianity than loyalty to the community.

At this point Prof. Royce will probably protest that I am taking too seriously his language about the "beloved community". He admits that the community does not exist in any outward and visible form. It is not any branch of the actual Christian Church or all of them put together. It has no outward and visible existence, and never will have. Now of course we all know what an ideal is, and it is the nature of the real world or, as Philosophers say, of the phenomenal world to fall short of the ideal, and some of us may even be disposed to recognise a profound meaning in Plato's further doctrine that after all it is the ideal that is the most truly real. But what I am disposed to complain of in Prof. Royce's treatment of the subject is that there is simply no relation in his theory between the actual and the ideal. His ideal community is a χωριστὸν εἶδος—a universal which does not reside, to any extent or in any degree, in its particulars. When he comes to actual or even to possible Christian societies, he has nothing but rather contemptuous expressions for them which we expect to meet with in those very writers whose view of the nature of Religion he justly regards as over-individualistic, and who do not understand the social character of the religion, the religious consciousness, religious experience, religious ethics. All the things that Prof. Royce tells us about human society—the reality of its common life, its being a "person" and the like would simply be untrue if the society of which he speaks were merely an ideal, a city in the heavens. Much of Prof. Royce's language about the real and "personal" existence of societies seems to me somewhat exaggerated and misleading; but I am quite in sympathy with what at bottom I take him to mean, and I will assume for the moment that it is all true and accurately expressed. And the truer it is, the more it compels us to recognise that it can be true only of some actual human society or societies. No doubt the ideal is not and never will be *perfectly* realised by any actual, organised society, or by all of them put together. But Prof. Royce's practical teaching can only be applied to actual life by the existence of societies which *attempt* to realise the idea, and by individuals who attach themselves to whatever society seems to them the best adapted here, now, for them—to represent or symbolise this great idea of the community of the redeemed. And if that is so, actual Churches and organisations ought not to be spoken of in the rather patronising tone which Prof. Royce usually adopts towards them. In recommending to the individual—at least to the philosophic individual—an attitude of complete detachment from all existing religious organisations, all traditional creeds and systems, all signs and symbols and incarnations of the spiritual reality, Prof. Royce is, as it seems to me, practically unsaying and contradicting all the valuable teaching in the earlier part of his work about the essentially social character of

Religion and of all the higher moral and spiritual life of man. He would be quite justified in insisting strongly—more strongly even than he has done—upon the gulf which yawns between the magnificent ideal of the Churches and their actual practice, upon the necessity for reform, for adapting their teaching to the ideas of the age and so on. But to suggest to the individual that he should practically be content with a Church which exists only "in the heavens" is in effect to tell him to give up that article of belief in the Church to which Prof. Royce attaches so much importance. A Universal must have particulars. A Church which existed only in the heavens would not be a Church at all. The inconsistency would be patent to every one if we transferred this way of thinking to the State. Undoubtedly no actual State is more than an inadequate attempt to realise the true ideal of the State as it presented itself to a Plato, an Aristotle, or a Hegel; but, so far as I am aware, no one who has treated the State in the spirit of any of these philosophers has ever combined such an exalted view of the ideal State with such contempt for the actual State as is practically expressed by Prof. Royce for the actual or even for every possibly actual Church or Churches. A man who should profess sympathy with the Hegelian idea of the State and recommend Anarchism, or at least Stoic "autonomy" and detachment, in practice would have very inadequately learned the true lessons of Hegel's political thought.

But at this point I may be again reminded that at bottom the "beloved community" of which Prof. Royce tells us is only a name for humanity at large. At times Prof. Royce tells us so in so many words. But this only makes the inconsistency the more glaring. Doubtless mankind does form in some sense a community. But nobody knows better than Prof. Royce that a community of all mankind—at least so long as that community has no outward and visible social and political organisation or expression—cannot be to the individual all that a community ought to be. It must be in lesser communities than this that the true idea of a community must be realised; and these communities must be actual, concrete, more or less organised. Does not Prof. Royce tell us that it must be the supreme effort of the members of the "beloved community" to turn other men into members of it? How can he do this if they are already members as fully as they ought to be? If it be suggested that to make them members of an ideal community is only another way of saying to produce a moral or spiritual change in them such as might be constituted by entrance into an actual community—to behave towards every other as if one were trying to make them members of a community, I would submit that this is to idealise the conception of a community to a point at which it ceases to be a community at all or to have anything in common with the Christian Church or any other of the actual religious communities of history. And yet to say this would be to ignore the lesson which Prof. Royce's own study of Christianity so vigorously teaches.

This account of Prof. Royce's view of the Church is not complete without some reference to his theory of Atonement. In a chapter on 'Time and Guilt' he insists upon the irrevocable character and consequences of moral choice. There is, in Prof. Royce's view, a certain "actual and deliberate sin against the light"—a "sin against the Holy Ghost," the consequences of which are irrevocable. The Hell to which by such a sin the individual is doomed, or rather to which he dooms himself, is self-chosen. The individual who has been guilty of it will feel (or does Prof. Royce mean that he ought to feel?—the distinction does not seem to be recognised): "It is my precious privilege to assert my own reasonable will, by freely accepting my place in the hell of the irrevocable, and by never forgiving myself for this sin against the light. If any new deed can assign to just that one traitorous deed of mine any essentially novel and reconciling meaning—that new deed will in any case certainly *not* be mine. I can do good deeds in future; but I cannot revoke my individual past deed" (i., 266-267). The only way in which the sin can be atoned for is that something should be done "which gives to my very treason itself a new value; so that I can say, not 'It is undone'; but 'I am henceforth in some measure, in some genuine fashion, morally reconciled to the fact that I did this evil'" (i., 281).

The author insists on the inadequacy of the idea of substitution or of modern "moral" theories of Atonement, like that of M. Auguste Sabatier, based on the actual effects upon the heart of self-sacrificing love. We want an *objective* atonement. The "triumph over treason" which is required "can only be accomplished by the community, or on behalf of the community, through some steadfastly loyal servant who acts, so to speak, as the incarnation of the very spirit of the community itself. This faithful and suffering servant of the community may answer and confound treason by a work whose type I shall next venture to describe, in my own way, thus: First, this creative work shall include a deed, or various deeds, for which only just this treason furnishes the opportunity. Not treason in general, but just this individual treason shall give the occasion, and supply the condition of the creative deed which I am in ideal describing. Without just that treason, this new deed (so I am supposing) could not have been done at all. And hereupon the new deed, as I suppose, is so ingeniously devised, so concretely practical in the good which it accomplishes, that, when you look down upon the human world after the new creative deed has been done in it, you say, first, "This deed was made possible by that treason; and, secondly, *The world, as transformed by this creative deed, is better than it would have been had all else remained the same, but had that deed of treason not been done at all.* That is, the new creative deed has made the new world better than it was before the blow of treason fell" (i., pp. 307-308).

Prof. Royce does not pretend that the death of the historical Christ is much more than a symbol of this idea. And yet he contends that this is something very like "the form which, as I believe, the Christian idea of atonement has always possessed when the interests of the religious consciousness (or, if I may use the now favourite word, the subconsciousness) of the Church, rather than the theological formulations of the theory of atonement, have been in question. Christian feeling, Christian art, Christian worship, have been full of the sense that *somehow* (and *how* has remained indeed a mystery) there was something so precious about the work of Christ, something so divinely wise (so skilful and divinely beautiful?) about the plan of salvation,—that, as a result of all this, after Christ's work was done, the world as a whole was a nobler and richer and worthier creation than it would have been if Adam had not sinned" (i., pp. 318-319).

To the orthodox Christian who accepts premisses which Prof. Royce could not accept, the work of Christ might perhaps be considered to have this supreme value. But why has the work of Christ any such value unless a "satisfaction for sin" be required such as only a sinless and divine Being could offer, or unless we accept any of the numerous orthodox theories which profess to demonstrate the necessity of such a death? If the answer be found in the teaching, the life, the character, the self-sacrificing love of Jesus as illustrated or supremely expressed by His death, can these seriously be said to have a value outweighing the negative value of the sins of the whole world, apart from the effects which they have produced upon human souls and lives? And if we do say that it is the consequence upon the actual moral condition of human beings that gives it this supreme value, are we not back again at a "subjective" theory of Atonement? If its value may be said to be objective in the sense in which all values are objective for those who believe in values at all, this might be equally alleged by the partisans of the "subjective" or "moral" theories which Prof. Royce regards as so inadequate: the objective value lies in a subjective effect. Or, if Prof. Royce replies that he is only thinking of what Christians in the past have felt, and that for himself the objective atonement is constituted by the supremely noble deeds of all history which have been made possible by all the "sins against the Holy Ghost," I should ask whether there is really any sense or any utility in speaking of these deeds as "atoning" for guilt? If Prof. Royce were to plead that they have actually made possible for all these sinners a repentance, a renewal, an amendment of life which was not possible without them, there might be some meaning in saying that they are atoned by the good deeds; but this Prof. Royce cannot contend, for he admits that repentance, amendment, forgiveness by the community might all be possible without any such "atoning deeds". Does he say that only by virtue of these can the individual "forgive himself"? If a man

really says to himself: "My sin has produced so much good in the world that I need not now mourn over my bad deed any longer," this does not seem to me a particularly edifying state of mind. Even if it be the fact that the quantity of good which has been introduced into the world by the atoning deeds made possible by all the sins against the light exceeds the good that would have been possible without them, I doubt the expediency of calling this an "atonement". If the man really persuades himself that because of these deeds his sinful act is "undone" (that is Prof. Royce's view), he surely deceives himself. The value of these 'atoning deeds' may be important from the point of view of theodicy, but it seems to me to have no religious or moral value for the individual soul seeking "reconciliation". His deed cannot be made less bad than it was, nor his present spiritual position improved, by any such good consequences which may have flowed from his sin. He can only be restored, renewed, forgiven by that repentance which according to the teaching of Jesus was the one thing needful for "justification," but which Prof. Royce disparages. To put my criticism in the technical language of the old Theology, Prof. Royce's doctrine of the Atonement is quite unconnected with any theory of justification, or, if there is any theory of justification, it is an intelligible and immoral theory. He does not show how Atonement of this kind can be any real value to the sinner.

And here I cannot help expressing my regret that philosophers who undertake to develop the inner meaning of the historical doctrines of the Christian or any other historical religion do not take the trouble to read a little more about their origin and history. Prof. Royce very modestly disclaims for himself any competency to deal with critical or historical questions. And yet after all the historical origin of a belief has some bearing upon its philosophical interpretation. If religious philosophers would study the origin of the Atonement doctrine, they would perhaps come to the conclusion that that origin is to be sought simply and solely in the authority of Isaiah liii., and other prophecies of the Old Testament, messianically interpreted. If the notion of an "objective" Atonement owes its origin simply to a mistaken interpretation of documents believed to be authoritative, he will perhaps feel dispensed from finding an explanation of it either in "Christian experience" or universal religious experience. No doubt the doctrine did appeal to very real needs and cravings of the human spirit; but, unless we are Pragmatists, we are not bound to accept doctrines as true because they are comforting—still less because they were comforting to people whose intellectual envisagement of the Universe was not the same as our own. The fact that the Atonement doctrine originated neither in the teaching of Jesus nor in "Christian experience" may not prevent its having in it an element of eternal truth, but perhaps this element may be adequately expressed by something like the subjective view which commends itself to mere

"Theologians," like M. Sabatier, who know something about the origin of the doctrines which they attempt to interpret, and whose theories Prof. Royce treats rather scornfully. If the "objective" theory was really imposed by authority, if those who attempted to explain the theory either fell into grossly immoral views or ended by substituting for it a theory which was not really objective, the philosopher is surely not bound to find an equivalent for an objective Atonement in terms of philosophical thought. That this equivalence is on Prof. Royce's own theory very problematical, is so evident that I can hardly think it will meet with much acceptance either from really orthodox thinkers or from those who very properly want to reinterpret the truth implied in traditional Theology in terms of more modern thought.

I have been obliged to pass over much that Prof. Royce tells us about the nature of communities in general—much which he tells us that most philosophers do not understand. But there is one portion of his doctrine which is too original to be ignored. Prof. Royce has been much impressed by Prof. Pierce's purely logical conception of "interpretation". He has remarked truly that neither those who exalt perception at the expense of conception nor those who exalt conception at the expense of perception can adequately explain the nature of our knowledge of other people's minds. My neighbour's mind is not an object of which I can have any direct perception, nor is it "a *general* or *abstract character* a *type*, a *quality* or some complex object based upon such universals" (ii., p. 127). Here is Prof. Royce's own solution of the problem :—

"If, then, there be any cognitive process whose proper object is your neighbor's mind, this process is neither a mere conception nor yet a mere perception. Is it, then, some synthesis or combination of perceptions and conceptions? Or is it, finally, some third form of cognitive process, which is neither perception nor conception, and which cannot be completely describable in terms of combined perceptions and conceptions? Now it appears that the word 'interpretation' is a convenient name for a process which at least aims to be cognitive. And the proper object of an interpretation, as we usually employ the name, is either something of the nature of a mind, or else is a process which goes on in a mind, or, finally, is a sign or expression whereby some mind manifests its existence and its processes" (ii., 128-129).

It is quite impossible for me adequately to expound Prof. Pierce's original theory or Prof. Royce's attempt to bring out by its aid the inmost nature of the ideal community adumbrated in the historical Christian Church as a "community of interpretation". I must be content with indicating that there is this important side of Prof. Royce's teaching which I have not been able to examine. I confess that I do not find it either very intelligible or very satisfactory.

My general view of this remarkable work is that it contributes a most valuable element to that philosophical interpretation of Christianity which our age so badly needs but that it is in one way redundant, in another incomplete. It is redundant because it is mixed up with certain highly technical notions about communities and the nature of our knowledge of one another which will seem to many of more questionable value in themselves and not so closely connected as Prof. Royce supposes with the ethical and religious ideas which he is studying; it is incomplete since it ignores many elements in Christianity which are of equal value with the element which impresses Prof. Royce. The magnificent exposition and vindication of the Christian doctrine of Love and the idea of the Christian community seem to me one of the most valuable contributions to the Philosophy of Religion which have been made by any thinker of our time. This is a most important element in Christianity, but I cannot think that it contains a full solution of "the problem of Christianity". After all this would be too much to expect in any one work of any one writer, however eminent.

H. RASHDALL.

La Trascendenza. By G. RENSI. Turin: Fratelli Bocca, 1914. Pp. xii, 523.

THIS "study of the moral problem" is interesting and often very suggestive, though it may be doubted whether any one but the writer will be fully satisfied with its conclusions. The author incidentally speaks of his general views in philosophy as those of a "platonising Hegelian," though his special preferences in modern philosophy seem to be for Pascal, Malebranche, Bruno and Schelling, and in some part Fichte, and he sees Plato mostly through the eyes of the Neo-Platonists of the Renaissance. In view of the nature of his own moral theory it is interesting that he seems to regard Green's *Prolegomena to Ethics* as the great masterpiece of recent philosophy, apparently on the ground of Green's crushing examination of Hedonism.

If I had to indicate Mr. Rensi's philosophical position in a sentence, I think I should say that he combines three characteristics which are not usually all found together: he is an "Averroist," a supra-Lapsarian Calvinist, and a Latin to whom such verse as the *Amores* of Ovid and the Virgilian *Copa* appeal as they can hardly ever have done to us men of another blood. "Classical" idealism (*i.e.* Kant and Hegel), he holds, cannot give a true account of moral facts, because it has inherited from Kant

four fundamental errors, (1) the doctrine of the autonomy of the goodwill; (2) the identification of the goodwill with a universal Reason immanent in all mankind, as opposed to the private "inclination" of the individual; (3) the belief that in virtuous, as opposed to vicious, action, the human individual is "free"; (4) the identification of Reason = the will towards good with the "noumenal" or "true" self.

Against the ethics based on these metaphysical presuppositions the author maintains (1) that the individual's "true" self is exactly that mass of cravings and appetites for particular satisfactions which Kant calls the "phenomenal" self; (2) hence action in accord with a universal maxim is always heteronomous, always obedience to something which is not myself, in fact to an absolutely transcendent Deity. (Strictly speaking, such action is not *mine* at all; there is—and here Mr. Rensi agrees with the Sufis, only one *fā'il-i-haqīq* or "true agent" in the universe, *viz.*, God, and our "selves" are only the instruments through which He acts.) (3) The divine universal Reason is the source of evil action as well as of good. All "vice" is ignorance or error, and every "sinner," no less than every saint or moral hero, always acts from reasons which are absolutely sound and convincing to him. There is an insoluble practical antinomy of Reason; the arguments for virtue and for vice are equally telling, and it is purely a matter of one's original "nature" which of the "two λόγοι" one follows. We are so constituted that some of us can only hear the voice of the δίκαιος λόγος, some only that of the ἄδικος λόγος, and if we follow one rather than the other, it is not because we have heard the arguments on each side and found one more convincing, but because we have never "heard the other side" at all. Thus it follows that there is no such thing as yielding to "inclination" against reason. *All* action which is voluntary is necessitated by reason, and as such is rational. (4) Consequently the dualism of good and evil does not arise from the conflict between a divine element of reason and an animal element of concupiscence in man. The dualism belongs to the nature of God Himself as the universal Reason. The Calvinist doctrine of absolute predestination is true to the letter. Man is never "free" except in the sense that he follows his own "nature," when he is not under actual constraint. God only is free, and He expresses His dual nature equally in the "vessel of honour" and the "vessel of wrath".

How then, since it is denied that good action is the same as reasonable action, do we distinguish good from evil? Mr. Rensi offers an answer which is closely connected with Croce's conception of ethics. Like Croce he believes, as we have seen, in the fundamental duality of the practical reason. In one of its forms, he says, Reason urges us to live on the principle of *Carpe diem;* it urges us to take the good the gods provide us, to gratify the craving of the moment. But Green has proved conclusively that Hedonism

is incompatible with morality. Pleasure is *not* the aim of good men, and it is only from knowledge of what good men aim at that we can know what Good is. On the other hand, Green has proved that though it is not true that my actions need have my own pleasure as their end, the motive of every act is the *satisfaction* of a present desire. To identify the good, then, we must ask, what must be the end which gives me satisfaction for my present desire, and yet is not pleasure for myself? Mr. Rensi decides, in an off-hand way, that such an end can only be the pleasure or satisfaction of others. Thus he contrives to identify good with satisfaction found by the agent in activities which minister to the pleasure or gratification of "others," or—he treats the two things as identical, of "the community". This is what "God as good" wills in the "vessel of honour"; pleasure from any source and at any cost is what "God as bad" wills in the "vessel of wrath".

There are obviously some very weak points in this construction. For myself I cannot see how such a God as the author depicts could so much as maintain His own existence. "If Satan be divided against Satan" we know what happens, and I do not believe the state of the case altered by merely calling Satan "God". But apart from this ultimate issue, it seems clear that neither the identification of moral evil with pleasure-seeking nor that of moral good with the seeking of the pleasures of others can be accepted. A reasonable morality does not condemn the pleasure-seeking act as such; it may even enjoin that on the proper occasion I should do just what will give me pleasure, and because it will give me pleasure. It is *living* for pleasure, not incidentally seeking it, which the anti-Hedonist holds to be *per se* wrong, If *seeking* pleasure were always wrong, the kind of unselfishness with which Mr. Rensi identifies the good would itself be evil, since it would be a mere assistance of others to sin. And the definition of Good is also defective, since, if we abide by Mr. Rensi's appeal to the convictions of "good men," no good man would admit without qualification that to aim at giving pleasure to others without any thought of your own pleasure is necessarily good. Action of this kind *may* be mortal sin; everything depends on the *nature* of the satisfaction you provide for "others". I may be excused if I take a simple illustration and speak quite frankly about it. A woman, with no relatives to whom her conduct can give pain, happens to be wooed by several lovers. Suppose that, in spite of a personal preference for clean living, she disinterestly prostitutes herself to all of them in the hope of giving them pleasure, is her conduct "good"? On Mr. Rensi's definition it should be, but the "good men" to whose verdict he appeals would, I take it, say that one must not "file one's soul" to give sensual gratification to any man or any number of men. Mr. Rensi's own attempt to meet difficulties of this kind seems to me a pure failure. He raises the question in the case of a member of a *societas sceleris*, and decides that you are not bound

to be disinterestedly loyal to such a body, since you cannot gratify them without hurt to the community as a whole, and is thus led to maintain that conduct is only really good when it gives dissatisfaction to no one at all. Now in a mixed world like our own this almost amounts to saying that a good act is impossible, since there will always be some *scelesti* whose aims are thwarted by the conduct of law-abiding citizens, and I see no reason why, as far as a given act is concerned, the *scelesti* may not be the overwhelming majority of those who are affected agreeably or disagreeably by it. Thus, in my illustration, the lady's lovers may well be the *only* persons agreeably or disagreeably affected by her choice between prostitution and chaste living, and, still speaking from the point of view of the *honesti*, they are one and all *scelesti*, and *ought* to be disappointed of their desire. If you tried to meet the difficulty, as a Platonist might, by saying that it is not really a *true* satisfaction they are seeking, and therefore they are not baulked of satisfaction by the lady's refusal to gratify their lusts, you will have to break with Mr. Rensi's identification of the "true" self with the mass of appetites which happen to be uppermost in actual fact. And again, I cannot feel in any way confident that Mr. Rensi's analysis really justifies his identification of the one side of the eternal dualism of the supposed Divine Reason with "good" and the other with "evil". If, to use what are almost his own words, the deadly sins and the seven gifts of the Holy Ghost are alike gifts of the same spirit, why should I call the one "sins" and the others "graces"? Why should I insist through it all, as he does himself, that "it's *better* being good than bad," and does my insistence bear any real sense? For, on his theory, another man is equally necessitated, and necessitated by reason itself, to think that "it's better being bad than good," and that tares after all are the real grain. Of course Mr. Rensi would reply that we act and believe according to our "natures," that we are what we are born, and that it is useless to try to change our souls. "We are what fate made us, and must be, For you the jungle and me the sea-spray, And south for you and north for me." But the difficulty is precisely that we are *not* born into the world with ready-made characters, pure sheep or pure goat. As Aristotle said long ago, what we bring with us into the world is neither good character nor bad character, but a body of "rational capacities" which are capacities equally for good or for evil, and our character depends on the way in which we "qualify" our capacities. I know that Mr. Rensi would deny this. He would say, all that makes our "nature" and all that acts on it is completely determined *for* us, not *by* us, and that, in fact, if some of us are by nature inhibited from appreciating the force of the ἄδικος λόγος, that is due only to the "free grace" of Calvinism. But he cannot prove this, he can only assert it, and he has the whole history of moral education against him. In point of fact, it seems to be as untrue to assert with him that "virtue" is the re-

sult of a special kind of "genius" with which only a chosen few are endowed as it would be to say the same thing about the power of thinking logically or of appreciating art. We are not all born with the gifts of a Newton or a Mozart, but would Mr. Rensi maintain that an education in correct thinking or in æsthetic taste is wasted on every one who is not a Newton or a Mozart? If he does mean this, his statements are at open variance with facts. It must, *e.g.*, remain doubtful if there is any man so "unmusical" that *no* training would make *any* difference to his ability to know good music from bad, and there are plenty of us who, without being Mozarts, have the witness in ourselves that a right education does vastly enhance our power of taking pleasure in the right kind of music and in no other. The "analogy of the arts" cannot be invoked to prove that either our judgment as to what is right or our ability to live up to it is something fixed once and for all at our entrance into the world.

Nor are the grounds given for holding that the δίκαιος λόγος and the ἄδικος are alike reasonable in the least convincing. Mr. Rensi says, in effect, that each *is* equally convincing, but each convinces only the proper type of man. He pushes the doctrine that "vice is involuntary" to the point of maintaining that the "morally weak" man only yields to his weakness *because* he is convinced by arguments which are irrefutable, so long as he retains his vicious desire. Psychologically, I should say, this is manifestly false. There are many of us who know quite well, when we yield to an inclination, that we are not induced to do so by any valid reasons whatever. When we fall, as Aristotle said long ago, it is because our *desire* for what is bad, acts as a substitute for the major premiss of the syllogism of action. The major premiss should be universal, and should introduce the notion of good or obligation, but we allow the particular "I happen to want this" to function in the place of the universal "this is right," or "it is good to act thus". Mr. Rensi's drunkard, who only takes "t'other bottle" because he has convinced himself, by arguments he cannot refute, that he *ought* to do so, is a pure fiction of theory. In actual fact, either one does not *think* at all about the matter, or one makes up one's mind to defy reason. One says in effect, "Hang it all, I mean to do it, right or wrong". On Mr. Rensi's theory, the tippler only sees the unreasonableness of his behaviour when he is suffering from the next day's "hot coppers," and he has then become, in effect, another man. It would be unreasonable for him, being what he is now, to repeat last night's excess, but last night, when he was a different man, it was something like a categorical imperative of reason to indulge. As to the point of fact, I should think that the sort of reasons which a man produces to justify or excuse an excess are just as much an afterthought as Mr. Rensi says his self-condemnation is. And I am not in the least impressed by the examples he quotes from Ovid and Boccaccio of

characters who reason themselves into incontinence. Even if we take the reasoning to be more than conscious self-sophistication, it has the vice that one of the premisses is always the expression of a mere strong desire to transgress, and that this premiss is regularly treated as equivalent to a universal assertion of obligation. Mr. Rensi seems never to have given any due consideration to Aristotle's analysis of ἀκρασία where, I think, he will find the explanation and refutation of his theory that Evil has its universals equally with Good. Nor does he see, as he should, that his introduction of the ἄνθρωπος μέτρον doctrine into Ethics ought to be attended by a similar introduction of it into "theoretical science". None of the arguments by which he tries to show that the universals of science are unambiguous will really stand examination. He urges in effect that in science you cannot deny conclusions correctly drawn from observed facts without being insane, whereas you may deny any generally recognised maxim of Ethics and remain perfectly sane, since in science the *facts* on which an inference is founded are equally open to the inspection of every one. But does Mr. Rensi really suppose that the untrained eye really sees for itself through the microscope what the trained experimenter says is there to be seen? Has he never heard, *e.g.* of the controversy about the observations by which the existence of the *N*-rays was supposed to be established? Does he really not know that it is often a real problem in science whether facts which one observer claims to have seen, but others have not succeeded in seeing, are mal-observations or genuine observations made by an unusually gifted man or in unusually fortunate conditions? And, if he is aware of all this, can he seriously maintain that in a scientific controversy about facts of observation, one party, at least, must be a lunatic? Yet it is quite clear that in such a controversy it must sometimes be the case that the one party is simply right and the other simply wrong. Why then does it follow that there is an insoluble antinomy of the practical reason because Philip drunk judges differently on morals from Philip sober? Especially as—in so many cases—Philip in course of getting drunk is well aware that he is losing his power to think connectedly and Philip growing sober knows that he is regaining it. Or, if I may put a purely hypothetical case, without giving offence, does Mr. Rensi believe that the views maintained in his book are true for Philip sober, but may be quite false for Philip in a different condition?

Mr. Rensi's appeal to Plato will not really help him out much. He attributes to Plato the doctrine that "virtue," so far from being the "reasonable" life, is a state of divine μανία,—of course with a reference to the well-known speech of Socrates in the *Phaedrus*, where, however, not a word is said about "virtue" as one of the four forms of μανία. They are one and all "occult" or "abnormal" states, the conditions of the "medium," the psychic

"healer," the "poet" and the "lover". This is backed up by an alleged statement of the *Meno* that virtue only comes to us θείᾳ τινὶ μοίρᾳ, "by the grace of God". But what Socrates really says is something quite different, *viz.*, that if "good men" arise among a people who, like the Athenians, have no true scientific knowledge of the nature of virtue and the way in which it is imparted, it can only be due to "God's grace". In such a state as that imagined in the *Republic* this would not be true; there the moral education into goodness of the most richly endowed natures is not left to "Providence" but treated *secundum artem* by men who have already acquired "knowledge" of the Good and can set others on the path to its discovery. θεῖα μοῖρα is never referred to by Plato's Socrates except with a tinge of irony which Mr. Rensi has not perceived. If he will study his Plato more carefully he will find that the good for man is always, for Plato, the object of a *science* and even of a calculus, an art of "number, weight and measure," and that precisely because the essence of it is "proportion" or "reasonableness". (What would Mr. Rensi say, for instance, to the *Philebus* or *Politicus?*) And it is a gratuitous blunder to represent Plato and Xenophon as connecting the "divine sign" of Socrates with his moral elevation. Xenophon represents it simply as a kind of second-sight which did for Socrates what the "soothsayer" or "diviner" did for other men, and Plato as an inexplicable inhibitory voice which most commonly makes itself heard in connexion with trivial matters. Sometimes the matter is not trivial, as when the "voice" is said to have forbidden Socrates to meddle with political affairs, but all that Socrates claims for it is that he commonly finds that he gets into some inconvenience if he neglects it; it is never once appealed to as an authority on any ethical issue, and there is always a touch of ironical humour in Plato's allusions to it. (*E.g.*, we see from the *Gorgias* that Socrates had much sounder reasons for avoiding politics than the real or imaginary prohibition of his "voices".)

The secret of the author's failure to give a recognisable representation of the facts of the moral life is to be found, as I think, in the curious interpretation which he puts in his opening chapters on the "classical" view of Reason as the source of the moral ideal. According to him what Kant really meant by the "universality" of a moral maxim is that every one *de facto* accepts the maxim. Hence he finds it easy to argue, much in the fashion of Pascal, that there is no practical maxim which is not rejected by some persons or in some part of the world, and consequently that evil maxims and good maxims stand on the same level so far as the Kantian test is concerned. Hegel, he adds, only made things worse by substituting for the formal universality of Kant mere conformity to the actual customs and beliefs of one's own special community as the criterion of right action. Now I do not deny

that there is real point in some of Mr. Rensi's contentions. For example, I think he is clearly right in saying that Kant's ethical doctrine, in which the source of all immorality is found in concupiscence as opposed to Reason, is inconsistent with his own theological doctrine of the "radical evil in human nature," according to which moral corruption has its seat in human reason itself, and again in maintaining that a consistent Hegelian would be bound to approve the crucifixion of Jesus, as Hegel himself actually justifies the execution of Socrates. So much emphasis has been laid, in our own country, by Hegelian moralists on the conception of one's "station and its duties," as the solution of all ethical difficulties, that I am glad to meet with any criticism which comes near touching on the radical flaw in the theory when it is treated (as, by the way it is *not* in the writings of Mr. Bradley) as the last word of Ethics. The difficulty, of course, is to know what *is* the station to which, as an excellent summary of man's duty puts it, "it *shall* please God to call me". But I am sure that Mr. Rensi quite misses the point of Kant's formula. Kant never meant that we have to find out whether a "maxim" is universal by ascertaining whether it is recognised, even theoretically, by every member of the human race. Indeed such a view would be manifestly absurd, since I cannot know empirically what maxims will be recognised by the individuals of future generations. Kant cannot even have meant by "universality" recognition by all mankind up to the present, since it would be, to say the least, a desperately difficult task to show that *any* existing moral rule has enjoyed even so much recognition, whereas Kant explicitly asserts more than once, in the face of notorious facts, that no one who honestly means to do well can ever have the slightest doubt what his duty is. It is plain that though Kant rashly asserts that the principles of right action *are* implicitly recognised by every one, he intends their "universality" to be the *proof* that they are recognised, and not *vice versa*. His real meaning is that the principle embodied in a right act *can* be made into a universal maxim without implying any contradiction, whereas the principle embodied in a wrong one is seen to imply a contradiction as soon as you take it as a universal maxim. Surely, if we disregard the empty formality of Kant's account, there is a fundamental truth in this thought,—a truth familiar enough to Plato and Aristotle. Just as there is only one direction in which a marksman can aim so as to hit the bull's-eye, but an infinity in which he can aim so as to miss it, so there is one way of living in which I, being what I am and where I am, can consistently and steadily live for the single aim of furthering the "common good," but a million ways in which I can live with *no* steady purpose. And therefore it is wrong in principle to speak of an "evil reason" or a "principle" of evil. The whole point is that a man, in so far as he is bad, just because he is only a bad man and not a "devil," is, what common

language calls him, "unprincipled," an ἀνὴρ δίψυχος. And by calling the good life the reasonable life we do not mean that "reasons" of a sort cannot be found for living ill, ("*reasons*" can be found, such as they are, for anything),—but that the good life, and only the good life, is one which exhibits perfect consistency to a principle which can satisfy the intellect. Mr. Rensi has really done nothing to show that this conviction is mistaken.

A. E. TAYLOR.

Die Grenzen der naturwissenschaftlichen Begriffsbildung. Eine logische Einleitung in die historischen Wissenschaften. Von HEINRICH RICKERT. Zweite neu bearbeitete Auflage. Tübingen: Verlag von J. C. B. Mohr (Paul Siebeck), 1913. Pp. xii, 644.

PROF. RICKERT'S essay has been out of print for some time past. On its first appearance a dozen years back, its method, if sound, was seen to involve nothing less than an entirely new gambit. The challenging quality of much of its doctrine gave it a leading part to play in controversies that are still vital. Even the many who upon reflexion found themselves unable to adjust their thinking to the Freiburg professor's scheme, felt the suggestiveness of his detailed and episodic discussions. This re-issue is on all counts deserving of welcome.

Revision has been thorough, but the author calls attention to one change only that involves a difference of principle, *viz.*, the sharper distinction between logic and psychology, and a consequent drift away from the position of Sigwart. Beyond the signalisation of this difference, the new preface is chiefly interesting for some words of orientation towards the teaching of Prof. Dilthey and M. Bergson.

Dr. Rickert's main contention is familiar. Sciences are to be distinguished according as they generalise or individualise, concern themselves with the uniform or the unique. If a science works by establishing general concepts or laws and treats individuals never in their once-for-all-ness but always as cases under a class-concept, it is a nature-science. And even psychology must be regarded as a nature-science. If on the other hand procedure is directed to the rendering of individuals in the unique course of events, though by means of common elements or significations, which are the *prius* of scientific generalisation and individualisation alike, then our task is historical, we are in the field of culture-sciences, where our clue to selection is value-relation of an ob-

jective order. The limit to the application of the method of natural science is fixed by the obligation under which it lies to work away from the unique course of events, and by its indifference to value-relations other than truth-values in a specific and narrow sense of the word truth.

There is of course a relatively natural-scientific constituent in cultural sciences, a relatively historical constituent in nature-sciences. But the contrast of ideal and of method rests on the polar opposition of the absolutely or purely natural with its general laws and the absolutely or purely historical with its individual values.

The ideal of natural science is mechanism with its resolution of thing-concepts into relational concepts up to the limit of residual 'last things,' ultimate atoms or 'reals' qualitatively and quantitatively alike, between which relations obtain. It resolves the heterogeneity of the spatio-temporal order which is its datum into a quasi-mathematical homogeneity whose every fact admits of replacement by an equivalent. Between the natural thus conceived and the historical preoccupied with that whose essence is that it admits of no substitution the cleavage is indeed deep-cut and final.

Prof. Rickert's line of demarcation leaves psychology decisively among the sciences of nature. He cannot accept of a group of sciences of mind over and against physical science. Psychology too is a matter of atomic ultimates of a sort and their generic relations. Speak as it may of '*the* individual,' it concerns itself with the type or average, not with *an* individual or with individuals as such. The distinction of psycho-physical self, psychical self, and epistemological self which Dr. Rickert develops in order to do away with the claims of the psychical as such is important in itself. Throw as much out from the first as can be classed as physical and there remains the psychical. Discard from this all that can be regarded as object and there is at the limit the subject which is never object. It is the importance of the over-individual epistemological self that has given more than its due to the psychical with which it is confused. A cleft between physical and psychical will no more serve Dr. Rickert's requirements than one between explanation and description. In either case both antitheta fall for him within the natural-scientific.

Yet history is science and not art, for art has no care for truth in the sense in which history is bound thereby, *i.e.*, for truth to the individual or once for all course of events. Any definition of science which is not a begging of the question by inclusion of the notion of nature, allows of scientific individualisation, of historical science.

It is clearly when we have to do with the psychical that the issue between classification by subjects and Prof. Rickert's classification by methods becomes crucial. He does not reduce the

psychical to the physical, and any form of psycho-physical parallelism might still admit of a group of mental sciences. And with the dawn of sentience it becomes increasingly difficult to deny individuality and historical value of howsoever exiguous a degree. Complete substitutability is no longer quite plausible. The universality of the natural-scientific is at this stage manifestly to be secured only by abstraction. Herr Rickert does not contest this. It is enough for him that the generalising nature of psychology, entirely successful as it is in its own field, proves that on its lower levels we meet only the relatively historical. He seeks for the key-thought of the historical sciences where uniqueness of value-relation is the dominant note, generalisation subordinate. It is there alone that individual causation, irreducible to abstract ground and consequent, is to be discovered. There that we have wholes instead of genera. There that we find ourselves truly in a kingdom of ends.

Prof. Rickert's criticism of the way in which evolutionist naturalism has equivocated between the concept of development to which it has a right and that of progress to which it has none, is luminous. He perhaps underestimates somewhat the strength of a humanist point of view which should maintain a *de facto* teleology and value the non-human simply as contributory or adverse to the emergence and maintenance of the human type. But it is true that naturalistic speculation is at its worst when it waxes teleological. Herr Rickert's own teleology is not relative nor subjective. It is one that rests ultimately on Kantian presuppositions, not those of the teleology of nature valid only for the reflective judgment, but rather those of the ethical kingdom of ends. It is objective value-relations, which happen, of course, as a fact to be centred upon human personalities of the individual or the group, that give historical significance. It is only by starting from such that the historian can select and reconstitute his causal series in the one order of time. If he must perforce employ elements of common signification, he must confess failure unless the totality is applicable to one subject of values only. Imagination may need to be called in to complete the concretisation of what else might be regarded as a class-concept where accidentally the class has but one member. In the historical sciences such as prehistoric anthropology and archæology, where the values to which all is to be related are wholes and not individual in the narrower sense, in constitutional and in economic history, where the centre of reference is again demonstrably the group, in the foreshortening of historic perspective where proper names lose value, it is still value-relation in the unique course of events that constitutes the historical or cultural-science, be the relative natural-scientific factor never so great.

Such are the limits to the natural-scientific method, such the claims of historical science that Prof. Rickert sets forth, on the

purely methodological distinction of sciences which generalise, and allow of substitution, where you can lose and replace facts, from sciences which individualise and are not substitutable, where the lost fact must be numerically recovered or stay lost for ever.

HERBERT W. BLUNT.

Philosophy of the Practical, Economic and Ethic. Translated from the Italian of BENEDETTO CROCE by DOUGLAS AINSLIE. London: Macmillan, 1913. Pp. xxxvii, 591.

BENEDETTO CROCE is perhaps the most significant and outstanding example of a movement which is making itself more and more obvious in the philosophy of to-day. He represents in its clearest and most self-conscious form the widespread reaction against the attempts of empirical science to force its conclusions and its methods into the domain of philosophy. William James, as we all know, refused to accept the materialism and determinism forced upon him by the tough-minded empiricists, but his only substitute for their method appeared to be that of individual caprice. Bergson more recently has gone further, and offers us the somewhat vague method of intuition as opposed to the classificatory method of science with its dead and frozen world. Croce shares their antagonism to the methods and conclusions of empirical science when employed in philosophy, but he reasserts in the place of these the methods and conclusions of pure philosophy itself.

In his Logic—and apart from the Logic his system as a whole is unintelligible—he distinguishes the pure concept or concrete universal, which is the object of philosophy, from what he calls the pseudo-concepts. The pseudo-concepts are of two kinds. There are first of all the empirical pseudo-concepts or the class concepts of science, which are concrete but not universal, which are symbols of real things, but have no distinctive and rigorous universal character. Secondly, there are the abstract pseudo-concepts, the concepts of mathematics, which are universal without being concrete, which can be exactly defined, but which do not stand for anything that is real. The pure concept or concrete universal, which is present in every moment of the real, is the object of knowledge. The pseudo-concepts—and this is the point upon which all his philosophy turns—are only useful or economic or practical devices; they are mere fictions; they have no claim to truth or knowledge, and their content is not reality.

We can now pass to the whole system which is worked out in the Philosophy of Practice as in the other volumes of the Philosophy of the Spirit. All reality is spirit, and philosophy or true know-

ledge is nothing but the articulation of the pure concept of spirit. What the sciences oppose to spirit under the name of mechanical nature with its classes and fixed laws is merely a useful fiction or abstraction created by spirit itself, and the science which creates it is not true, but merely useful or economically good. Now Spirit or the only reality necessarily manifests or articulates itself in knowing and willing, which stand to one another in a necessary relation, the relation of subject and object, and are reciprocally the condition and the conditioned. The existence of any third form or activity such as feeling is wholly excluded, but knowing is necessarily either knowing the individual, which is art or intuition, or knowing the universal, which is philosophy, while willing is either willing the individual or willing the universal, that is it is either economic or moral action. We may add that historical knowledge was at first regarded as falling under intuition, but is now determined as of the same nature with philosophy itself.

In this volume we are concerned primarily with action and its two subdivisions. Croce discusses first of all the relation between willing and knowing and the various problems to which that relation gives rise. Acting presupposes, and presupposes only, a knowledge of the historical situation in which we are, and it creates a new situation which we afterwards know. Willing consequently is always of the unknown, and indeed as we only know what exists, we cannot know the future which does not exist; we can only know what we will when we have willed it. This becomes clearer when we show that there is no philosophical justification for many of the purely empirical distinctions which are commonly accepted. We must indeed distinguish between action and its result, between the action of the individual and the action of the whole,—the difficulties of doing so are rather overlooked,—but we cannot distinguish between means and ends, or again between intention and volition and action. We will every act as a whole, we do not will anything as a means to anything else; that is an arbitrary distinction made afterwards within an indivisible act, no part or which is simply at the service of another part. In the same way what we intend, that we will, and what we will, that we do. We may afterwards make distinctions and maintain that in a different situation we should have acted differently, and that consequently though we willed or did one thing, we intended another. This however is wholly irrelevant; the only thing relevant is our action in the situation in which we are and of which we have full knowledge, and in that situation our intention and our volition coincide. Nor can we distinguish between our volition and our action on the ground that volition is an activity of spirit while action is a series of movements in nature. Nature with its mechanical movements is simply a fiction. The distinction between nature and spirit, between the external movement and the internal activity, between action and volition is wholly arbitrary.

As regards the knowledge which is presupposed in action, we always have full knowledge of the situation in which we act. An honest card-player for instance knows fully the actual situation in which he is, and this is not altered by the fact that if he were a dishonest card-player he might have different knowledge and might be in a different situation. We cannot therefore separate intention from volition by pleading that we were ignorant of the actual situation, nor can we do so by pleading that we were in error as to the situation, and that we erred in good faith. It is impossible to err in good faith. Error—and this is very important—is not a failure of the theoretical activity, for this is incorruptible, but is always, whether in the sphere of art or in that of philosophy, a product of our will alone. It is an economic act and consists in communicating to ourselves and others that we know something which we do not know; it is the wilful substitution of a representation or concept for a representation or concept which we do not possess.

Once more acting presupposes only a knowledge of the situation in which we are. The so-called practical judgment or judgment of value that this thing is good is simply a historic judgment that we have already willed this thing. It follows action and does not precede it. The psychologist, depending upon many historic judgments which of course presuppose philosophy, classifies actions for purposes of convenience under the various virtues and vices. These generalisations or pseudo-concepts become rules merely by being put into the imperative mood. Rules are useful but not absolute because not derived from true universals, and in every act we must get beyond rules and judge the wholly unique situation in which we are and in which we must act. Philosophy is defended from the encroachments of psychologists and rule-makers, and at the same time the philosopher is warned against attempting to formulate rules, and above all against any attempt to deduce them from his philosophy.

In regard to the dialectic of action itself he insists strongly upon freedom, which is the characteristic of spirit in all its activities. He rejects both the abstract freedom of the indeterminist and the equally abstract necessity of the determinist. Freedom is the synthesis of two moments which it is wrong to take as real in themselves, the moment of necessity or acceptance of the situation and the moment of freedom or free action in the situation. These two moments he shows to be necessary to one another and to presuppose one another. Mechanical causality is of course a fiction, whether applied to nature or to spirit in arbitrary separation from one another, it is a mere hypostasis of the abstracting and classifying function of spirit itself. Freedom or Liberty in this concrete sense is identified with Good, while "Antiliberty," that is either of the necessary moments taken by itself as mere passivity or mere arbitrariness, is Evil. Evil is thus necessary to and implied by good. it is the necessary opposite which good must conquer, but it

is wholly unsubstantial, it exists only by presence of good in its very heart, it is negative and not positive. Freedom may be described also as the victory of will over the passions. The passions are simply possible volitions, the infinite multiplicity or matter to which volition gives form, annulling or rejecting utterly all that it does not will. It is this creative activity which is life itself or goodness, the continual victory of life over death, of good over evil, and it is this also which is progress or development or becoming or evolution. Reality is progress, and because of the unsubstantial or negative character of evil there is no regress possible. He distinguishes, perhaps not quite clearly, between the progress of the individual and the progress of the whole, but there is no such thing as unconscious or mechanical progress. The progress of all reality is the progress of spirit, and the progress of spirit is always conscious.

In the second part of the book he elaborates further the distinction and the relation between moral and economic action, and incidentally criticises the science of political economy. He concludes with an interesting section upon law which he defines as "a volitional act which has for content a series or class of actions". He maintains that law is always ultimately the volitional act of an individual, and that it performs for the practical activity a function corresponding to that performed by the pseudo-concept for the theoretical activity; it is an abstract or even unreal volition of an abstraction.

We have indicated his main doctrines only in so far as they concern action, and have ignored the many interesting points he makes in this volume about the other activities of the spirit and particularly about feeling. It is obvious that one might raise many objections and difficulties to the views we have outlined, and that at first sight they may appear revolutionary and paradoxical. One must note however that they are systematically paradoxical, and that systematic paradox or even systematic stupidity is always thought at first to be the character of any philosophy which is really new. Just because his philosophy is systematic it is no use offering—what it would be easy to offer—an external and superficial criticism of separate details. Our first task must simply be to understand him, for to ignore him is impossible, and our second to do what he has himself attempted to do for the philosophy of Hegel, to develop our criticism from the very heart of his position itself, to indicate from this vantage ground the source of his errors, and in so doing to make a real advance in knowledge.

We would only add that in addition to being systematic Croce has another great excellence—he is a master of self-expression. His style is clear, logical, picturesque, and forcible, and his enthusiasm and confidence carry one along with him. His vivid metaphors and images are a continual source of pleasure, and he has a happy knack of illustrating his points by references to history. In this as in his other works he deals also with the views

of past philosophers, and his comments and criticisms are always interesting, though perhaps not always wholly just, at least in respect to Greek philosophy which he appears generally to underestimate and occasionally to misunderstand. His claim upon us is however not that of an artist or a historian, but that of a philosopher. He offers us a new view of life and of the world as a whole, and he has all the confidence and the suppressed enthusiasm of a discoverer. Whatever errors he may commit and into whatever inconsistencies he may fall, we venture to suggest that the work of Benedetto Croce will not be without a considerable place in the history of philosophy.

Of the present translation we prefer to say as little as possible. Mr. Ainslie might have avoided some of his mistakes by consulting the readable, and on the whole accurate, French translation by Buriot and Jankelevitch. His own translation is not distinguished either by literary elegance or by philosophic understanding; it is not always clear or even intelligible; and it too often ignores both grammar and sense with results which we cannot consider altogether happy. To study Croce through its medium is like studying the face of a man in a concave mirror. One may derive some diversion from it, if one is acquainted with the original, but those who depend upon it for their only source of information will receive from it an impression not wholly devoid of perplexity.

H. J. Paton.

VII.—NEW BOOKS.

Pedagogical Anthropology. By MARIE MONTESSORI. Translated from the Italian by FREDERICK TABER COOPER. London: William Heinemann, 1913. Pp. 508. Price 14s.

THIS volume comprises the lectures delivered by Dr. Montessori during a period of four years in the Pedagogic School of the University of Rome.

In view of the great fame which her method of educating young children has won for the author, we opened the book with high expectations which have only partly been fulfilled. There is really little that is new in the volume, yet it glows with the enthusiasm of a teacher whose aim is not merely truth, but the betterment of society through its influence. Detailed technical discussions of such subjects as the principles of General Biology, Craniology, the Thorax, etc., are interspersed with digressions in which some social or pedagogical moral is pointed. Perhaps this is natural considering the fact that the lectures were intended to show the bearings of anthropology upon pedagogy. The plan at any rate was deliberately chosen. "The first chapter," writes the author in the preface, "contains an outline of general biology, and at the same time biological and social generalisations concerning man considered from our point of view as educators."

She would have education based upon and guided by the anatomical or anthropological characteristics of each child, and so safeguard and allow free development for individuality.

By this means she hopes on the one hand to deliver normal individuals from the blight and curse of uniformity and conventional commonplaceness, and on the other largely to do away with the need for prisons and hospitals. Schools for the abnormal and the subnormal, who would be early recognised from their family records and biometric charts, would be so multiplied and perfected that in time prisons and hospitals would practically cease to be required.

"If criminal anthropology has been able to *revolutionise the penalty* in modern civilisation, it is our duty to undertake, in the school of the future, to *revolutionise the individual*" (p. 18).

Pedagogical Anthropology, according to Dr. Montessori, studies man from two different points of view: his development and his variations. The variations, however, constitute the most important subject of inquiry because through the help of variable characteristics we may be able to "discover a way for the future perfectionment of the human species and the individual" (p. 35). Pedagogical anthropology seeks for a more scientific and accurate knowledge of the normal human being, and so differs from criminal anthropology which pays special attention to the abnormal. The child in the school environment must become the subject of the most careful research, and innumerable biographic charts must be drawn and studied. The school therefore must be looked upon as a great "pedagogical clinic".

Much of this has been urged by medical men before, and already we have in this country and elsewhere medical inspection, and biometric charts for the guidance of teachers—and special schools for the feeble minded, the blind, the deaf and dumb and other exceptional classes.

The title "Pedagogical Anthropology" suggests not only a science, but the application of a science in a particular social direction. It aims at "the possible amelioration of man" through "the positive knowledge of the laws of human life". But surely "the laws of human life" are much wider than anthropology;—men are good or bad in spite of the shape of their nose or ears, or the measurements of their cranium. There are saints whom anthropological characteristics would brand as sinners, and there are human brutes with the faces of angels. Hence when Madame Montessori defines the science as "a method that systematises the positive study of the pupil for pedagogic purposes and with a view to *establishing philosophic principles of education*," we must insist that anthropology alone can never establish such principles.

Even granting that the individuality of any child or person has its basis in the anatomical structure of the child or person, and that every psychical phenomenon or characteristic has its physical or anatomical counterpart, we cannot admit that anthropology can provide anything more than an anthropological (*i.e.* physical) outlook upon the problems of education. Education has to deal with individuals possessing, to start with, many minute anatomical differences, but, while leaving some room for individuality, it aims at producing a social or civic type and on the whole succeeds.

Modern education takes individuals with different heredities, different peculiarities, different capacities, brings them together in the school, gives them, within certain limits, a similar training, similar activities, a similar environment; it rubs individuality against individuality,—mind against mind—and, in the long run, produces in all of them some share of that desirable common quality or synthesis of qualities which we call national character. They leave school inspired to some extent by national ideals, possessing some desirable national characteristics, endowed with a little of that necessary civic acquirement—a national common sense.

On broad lines it *does* consider the individualities marked out by anthropological conditions. It deals with the feeble minded and the imbecile apart, with the precocious criminal apart, with the normal or approximately normal, who constitute the majority, in the ordinary schools—and from them it selects the supernormal—the specially able and capable—and gives them a higher culture suited to their natural abilities.

Education really succeeds because it does *not* leave the individual, as Madame Montessori would apparently do, to work out his life on the lines that heredity or anthropology would in every case prescribe for him.

Intellectual and ethical ideals, and high social purposes count in modern education no less than the tendencies which are bred in the bone.

JOHN EDGAR.

Wealth and Welfare. By A. C. PIGOU. Macmillan & Co., 1912. Pp. xxxi, 493.

Prof. Pigou's book is a brilliant contribution to the newer economics, and it is at the same time a vindication of the mathematical method—if vindication were needed. After a preliminary discussion of welfare in relation to the national dividend, the main purpose of the treatise is

reached first in the determination of the dividend and finally in its distribution. The treatment of these questions involves the solution of many problems; and, as in other modern works, one notices the tendency to digress at considerable length towards subsidiary questions arising out of the main theme. If this be unsymmetrical in treatment, there is the excellent example of Adam Smith. As instances of what I have termed digressions may be mentioned the detailed treatment of topics arising out of monopoly which occupies more than one-fifth of the whole book. Yet in reality scarcely a page could have been spared. Besides simple monopoly (if the term may be used) duopoly, multiple monopoly, monopolistic competition, discrimination, railway rates, purchasers' associations and State control are treated fully with valuable mathematical illustrations. This part of the book is an important addition to economic theory. Another interesting digression (though a much shorter one) is the passage in which the discovery of a new factor in production, "namely uncertainty-bearing" is announced. By gradual steps "insurance against risk" has gained a distinctive position in distribution, and it seems symmetrical to give its analogue a corresponding rank in production. It is contended that, while uncertainty-bearing is generally associated with waiting, "it is analytically quite distinct". Though there are difficulties in the two-dimensional character of the other factors and in the heterogeneous elements into which uncertainty-bearing can be resolved as compared with the homogeneous nature of waiting, the fact that uncertainty is related to the logic of chance while wait ng is connected with time seems to afford a sufficiently clearly marked line of theoretical demarcation. These points, as well as others connected with variations in general prices and real income, are of great interest to the economist; but to readers of MIND further detailed discussion might be tedious. There remains a most important discussion which brings into clear expression a tendency in modern economics which is often present (especially in the more popular writings), but which has not been so clearly expressed and explicitly defended hitherto in a definite manner in a work by a professed economist. This is the claim that ecouomic investigation is "not primarily scientific, if by science we intend the single-eyed search after knowledge for its own sake. It is rather practical and utilitarian, concerned chiefly to lay bare such parts of knowledge as may serve, directly or indirectly, to help forward the betterment of social life." This claim is a wide departure from the attitude of the Classical School, and it cannot fail to interest students of other subjects which are related to economics. Indeed such a view affects others besides the economist; and, if it is maintainable, it will change the relation in which economics has been supposed to stand towards cognate studies. This view transforms economic inquiries into what has hitherto been described as the art of Political Economy (as distinguished from the science) or as applied economics. It is, in fact, economic pragmatism. It seems to me that this conception of the subject is, in one sense, too wide, in another it is too narrow. What "helps the betterment of social life" includes much that the economist needs to take note of, but which does not necessarily fall within the proper scope of his own special study. Security of person and property is a factor in progress, yet the conditions on which it depends fall within the province of Political Philosophy and Jurisprudence. On the other side, Prof. Pigou's interpretation appears to rule out many abstract inquiries if these have no apparent reference to progress. Is it not likely that such theories are first established as "a single-eyed search for knowledge for its own sake," and afterwards a practical application may or may not be made? These considerations point to a process of

specialisation in economic inquiry—first (or rather logically prior) a detached investigation of some conditions or phenomena for their own sake, what was formerly termed economics as a science, and then the application of the theoretical principles to everyday life, which application need not be limited to social betterment. And in this connexion it may be noted that Prof. Pigou's practice differs from his own definition, at least it would need a complacent censor to pass all his investigations as being concerned with social betterment. It may be that the qualification in the words italicised ("such parts of knowledge as may serve, *directly or indirectly* to help forward the betterment of social life") is intended to cover the most abstract and theoretical investigations. But taken in this wide sense, almost any study might be claimed as making indirectly for social betterment. Even if no one else gained anything, the student himself might be thereby a better member of society. But after all this is only to defend scientific economics by a roundabout process of argument.

W. R. Scott.

The Fitness of the Environment.[1] By Lawrence J. Henderson. The Macmillan Company, 1913. Pp. xv+317.

It must be evident to all who attempt to gauge the essential spirit of experimental science in America that the influence of Ostwald, van't Hoff, and Arrhenius is supreme, and the work now under review furnishes an excellent example of how far the doctrines of these masters have penetrated American scientific thought.

The general scope of the treatise is sufficiently indicated by the title and, as the author frankly admits, is not entirely original. That Darwinian fitness is a reciprocal function and may possibly be shared not only by the organism but also by the environment, is an idea which has not escaped the notice of those chemists and physicists who seek to trace the evolutionary development of existing natural conditions. Thus, we find in the essays of Dr. George Wilson numerous references, couched in popular language, to the manifold evolutions of environment which have accompanied the development of life, but in no work known to me is the problem treated in the philosophical manner and with the mathematical accuracy which Prof. Henderson's command of physical chemistry makes possible.

It may at once be said that, within his self-imposed limits, the author makes good his case. Selecting carbon dioxide, water, and certain organic compounds, as the fundamental essentials of an environment for life, he brings forward convincing evidence to show that the existing environment has developed into being the most suitable abode of life: that is to say, "life" as defined by Prof. Henderson.

Before developing his argument, the writer lays down the essentials of fitness and proceeds to summarise in a masterly manner the modern position of chemistry, astronomy, and physics, so far as these and kindred sciences bear on the problem under discussion. Thereafter the physico-chemical properties of water and carbon dioxide, and the constitutional aspect of organic compounds are treated in considerable detail. In many respects, these chapters form the most conspicuous features of the book, which closes with the logical treatment of the results and a discussion of vitalism. Throughout the work, Prof. Henderson shows himself to be a scientific thinker of great versatility and penetration, and has given ample proof of his remarkable capacity to bring the highly

[1] An inquiry into the biological significance of the properties of matter.

abstract details of his own investigations within the reach of the non-scientific reader.

When a difficult task has been undertaken with such conspicuous success it is unfortunate that attention must be drawn to some features in which this book is open to criticism, but the fact that the problems discussed are of the highest importance and must of necessity appeal to many whose acquaintance with the experimental and natural sciences is but slight, makes it necessary to refer to some points which require modification. Thus the statements made on pages 29 and 30 regarding our present knowledge of the chemistry of protoplasm and metabolism, will not find many supporters even among the most optimistic biochemists. It is unfortunate that such confident claims should be made as they are unnecessary for the argument. It is also in many ways misleading to emphasise the inert nature of water in view of the present position of the ionic hypothesis and the views now held regarding catalysis. To turn to details, which are no less important, it may be pointed out that the expression "ammonia" is used repeatedly where *liquefied ammonia* is meant and the distinction between *water* and *sea-water* is occasionally by no means clear. Further, the arrangement of the constitutional formulæ of organic compounds leaves much to be desired, as in certain cases the sign of equality in an equation may be readily mistaken for a double bond (pp. 233, 234).

These details will, of course, present no obstacles to the trained chemist, nor will an unfortunate mistake in the formula for glycerophosphoric acid, but to other readers, struggling with the intricacies of graphic formulæ, they must be perplexing in the extreme.

It is only a sincere admiration for the way in which Prof. Henderson has carried out his task which tempts me to express the hope that the work may, in the near future, be expanded so as to include more examples of fitness and to introduce in greater detail the subjects of catalysis, osmosis, the colloidal state, and the effect of pressure in regulating the environment. A recent article by Dr. E. F. Armstrong indicates another direction in which the theory of adaptation and fitness may be profitably extended to include the action of enzymes.

It is no unimportant fact that Prof. Henderson's book is in part a reprint of lectures delivered by him in the Lowell Institute. Lecture courses of this description cannot fail to develop that breadth of view so often lacking in the young student of science, and the scheme might with advantage be copied in our own Universities.

J. C. Irvine.

A Theory of Time and Space. By Alfred A. Robb. Cambridge: W. Heffer & Sons, Ltd. Pp. 16.

This extremely interesting pamphlet contains a short account of the method by which the author proposes in a forthcoming work to deal with certain paradoxes about time which appear in the Theory of Relativity in Electrodynamics. Mr. Robb has already dealt with the kinematical and geometrical formulæ of the theory from a new point of view in a little book called *The Optical Geometry of Motion*, published some two years ago; but the present pamphlet is of more philosophic interest.

The difficulties (or at any rate paradoxes) to be met are of the following kinds: "If two observers whose measuring instruments and clocks agree with each other when they are relatively at rest subsequently are in unaccelerated motion relative to each other and determine the velocity of light from any source common to both they will find the same value

for it. This fact can be shown to involve (among many other interesting consequences) that their measuring rods can no longer have the ratio $\cdot 1$ when used for measuring lengths in the direction of relative motion, and that their clocks can no longer be going at the same rate. The result is that two events which are contemporary as judged by the clocks of one system are not so as judged by those of the other. But if motion be purely relative it seems that we have no right to call the readings from one system '*the* time' rather than those from the other. Thus we seem to get the paradox that two events are both simultaneous and successive.

It is with this paradox that the author attempts to deal. His solution is to argue that the relation of before and after between moments is not connexive. We commonly assume that if A and B are moments of time, and A is neither before nor after B, the A and B must be identical (*i.e.* events at A and B are simultaneous). But this does not logically follow from the other properties of the relation. The author illustrates the independence of connexity by considering the relations of points within and without a series of cones. He then adds that it is only of events that happen in the same point of space that we can say that if they are not successive they must be simultaneous.

A is before B if and only if it be possible for a cause acting at the moment A to have an effect at the moment B. 'B is before A' is defined in a like manner. A and B are neither before nor after each other if a cause acting at A can produce no effect at B and *vice versa*. Suppose now it is true that no disturbance travels faster than light and that a flash sent from P at A reaches Q at B, at being immediately reflected returns to P at C. No disturbance that left P after A could reach Q at B. Hence no moment at P after A can be before B. Similarly no moment at P before C can be after B. Hence no moment at P between A and C is either before or after B. So if we take this definition of before and after and accept the view that no disturbance can travel faster than light we see that we must either accept Mr. Robb's view that 'before' is not connexive or else assert that *all* moments between A and C are identical with B. Since the latter is impossible we must either reject Mr. Robb's definition of before and after, or the view that no disturbance travels faster than light (and this will not help us in the end if all disturbances travel with some *finite* velocity however large), or the view that 'before' is connexive. For my own part I see no very good reason to accept the definition of before and after. It is certainly not a definition in the sense that it states what we *mean* by before and after, for these notions are independent of causation. Hence I cannot see that we have more than a useful criterion which will not be convertible. Nevertheless it is quite worthwhile to work out the suggestion because of what it implies. If again Mr. Robb's method were the only way of avoiding intolerable paradoxes it might perhaps be accepted as involving the minimum of mental disturbance. But I am pretty certain that the paradoxical nature of the results of the theory of relativity arises merely from confusing lengths and times with the values of them at which we arrive by the only practical methods of measurement.

Mr. Robb proposes to build up a whole system of geometry on the notions of before and after as defined by him. He states that he has already carried his researches some considerable distance, and he gives a set of axioms and some results at which he has arrived. There is enough in this pamphlet and the earlier one to make us look forward with great eagerness to the appearance of Mr. Robb's complete work.

C. D. Broad.

Problems in the Relations of God and Man. By C. C. J. Webb. London: Nisbet & Co. Pp. x, 288.

The subjects discussed in this short volume were dealt with in a course of lectures on the Philosophy of Religion, delivered by Mr. Webb at Oxford in 1911. The general position of the writer may perhaps be best expressed in his own words: "Philosophy of Religion is an attempt to understand Religion as it is, as it really exists. . . . Christianity is the religion which I know best and which most of my readers will know best, and, judged by its position in the history of civilisation, may fairly be taken as that one in which we shall reasonably expect to find the general nature of religion most fully and richly developed" (pp. 245-6). The problems considered in the volume are in a sense raised by all religions; but the religious experience of Christendom determines the special form in which the questions are discussed. Thus the subjects dealt with are gathered under the headings Reason and Revelation, Nature and Grace, Man and God, the two former of which at once suggest topics familiar to Christian theology, though they are as important for religious experience in general as the relation of God and man.

No reader can fail to be impressed by the singular freshness in the treatment of the successive points taken up in the volume. The author's direct sympathy and acquaintance with the concrete realities of the religious situation are as evident as the acute and balanced philosophical judgment which he has brought to bear upon them. The section on Nature and Grace is particularly illuminating and suggestive.

The conception on which he lays most stress throughout his analysis is the essential objectivity of the Reality with which the religious consciousness is concerned. With this goes his claim that this Reality is the most concrete of all objects of human experience. He thus distinguishes his view, on the one hand, from all ways of treating religion as entirely subjective in process and content; and on the other he maintains that, so far from the 'absolute' being more than God, God is 'more not less than the absolute' (p. 254). While he is distrustful of all 'definitions' of religion, his working conception of religion is that of a concrete experience, whose subjective factor is the finite socially constituted human self, and whose objective factor is the independent Reality of God. From this follows the mutual interrelation of human reason and divine revelation, of the kingdom of nature and the sphere of grace, of God and man as personalities. There is no question for religion as to whether God exists: hence the only question for the philosophy of religion is what God is (p. 145). The nature of the personality of God is interpreted on the basis of social experience, which is inseparably connected with religion (p. 278 ff.). The life of human society, in fact, is a kind of middle term in religion between the individual person and the divine person. The absence of any direct connexion between the Divine Life and human society removed the Aristotelian God from the sphere of religion and made God solely an object of philosophical contemplation; while the linking up of the Divine spirit with the spirit of the community was from the first a characteristic feature of the Christian religion (pp. 220 ff.).

Most of the subjects discussed in the volume might well deserve a more extended analysis than the author has given them. But one quite appreciates the limitations within which the discussion is carried on. One may doubt the wisdom of abandoning in the *Introduction* the attempt to give a definition of religion: the analysis of a subject is not made any easier by declining to say what the subject means: and the difficulties regarding the relation of morality to religion (p. 259 ff.) are

increased by the absence of a definition of the nature of religion. The author's view of original sin is rather more hesitating than might have been expected, from his approval of the great saying: "O certe necessarium Adae peccatum . . . O felix culpa quae tantum et talem meruit habere Redemptorem." Perhaps, too, the interpretation of the relation of Aristotle's God to man is not altogether in the spirit of his teaching, or even of the letter (*e.g.*, *Ethics*, X, c. 7, § 8). Should not the name of the astronomer referred to on page 151 be Lalande instead of Laplace?

J. B. B.

Principles of Logic. By STANLEY WILLIAMS, B.A. "The People's Books." Pp. 94.

We should not call attention to this astonishingly bad book, but that there is danger lest it may be recommended by the merits of some other members of the same series dealing with cognate subjects. The writer, who is, we regret to see, an Oxford man, appears to have no equipment for his task beyond a colloquial style, and an imperfect acquaintance with some of the worst and most meagre forms of a bad 'pass' tradition. His care in expression may be judged from his account of privative terms as 'those which denote that *the term*[1] has been deprived of certain qualities which one would naturally expect'. Words like 'thus' and 'therefore' constantly conceal a lack of consequence; *e.g.* in regard to the fourfold classification of categorical propositions, and their indication by vowels, he writes, 'The origin of these letters is the effect of their classification. *For*[1] two of the forms (*viz.*, A and I) are affirmative: the other two (*viz.*, E and O) are negative'. He gives as examples of true definitions 'Brooks' Monkey Brand won't wash clothes,' and 'An archbishop is a prelate who holds the highest position in the Anglican Church'. His historical information includes the statements that in mediate inference 'we infer a proposition from a given proposition by means of a mediate or middle *judgment*,'[1] and that *Barbara Celarent* is 'a mnemonic rhyme, dating back to the time of Aristotle and earlier'; his general information the view that 'gases and unworked metallic substances and the like' are incorporeal. We are told that non-connotative, and therefore indefinable, terms are of two kinds: 'They are those which either denote a subject only, and there are those which only imply an attribute'. Perhaps the treatment of Opposition reveals the author most nakedly. It is said that 'for scholastic purposes' the table, in which the inferences that can be drawn by opposition are usually laid out, tells us that if I is true, O is false, but A unknown; if O is true, I is false, but E unknown; and this is no slip, for he calls attention to the fact that if some glass is not Venetian, some also may be; and he then proceeds, 'That is to say, Logic, as here seen working, is inconsistent with reason, and, consequently, this process of opposition has for some reason or other become useless: and until this inconsistency (amongst others) is cleared up, it will continue to remain in the shade.' But there is no branch of the subject whose treatment is not full of the most glaring mistakes. Geometrical induction or parity of reasoning is said to be 'practically analagy,' and analogy to consist 'in seeing a resemblance between two phenomena and applying a further inference to both'. In distinguishing observation and experiment it is alleged that 'We *observe*, for instance, that the reason why our motor bike does not "fire" is the fact that we have got some grease on the points of the magneto, and therefore there is no spark'; that the geologist 'may *observe* that, by the con-

[1] Italics ours.

figuration of the land, coal should be found in certain areas. Yet when he comes to sink a shaft, he may find that his observation was faulty': 'Experiment, however, is conclusive, since in it we have no opportunity of confusing facts with inferences, or of making wrong inferences.' The author thinks that 'heterogeneous intermixture of effects' means that of 'effects which act in contrary directions,' and that 'isolating a phenomenon' means 'rejecting the consideration of all but likely and reasonable antecedents and consequents to it'.

It is hard to see how such a subject as Logic is in this book made out to be should yet be said, in the Introduction, to be 'of great practical value and interest': rather we should incline to agree with the words of the Conclusion, 'Great, therefore, must be the breach between the world of Practice and the world of Thought'. The book may have interest to the curious collector, but otherwise is worse than worthless; and that, its only, value would be enhanced if the publishers took the only proper course and withdrew it from circulation.

Personality. By F. B. Jevons, Litt.D. London: Methuen & Co., 1913. Pp. ix, 171.

This excellent little book contains the substance of a course of lectures delivered at Oxford in the Vacation Term for Biblical Study, and is admirably fitted to give the ordinary man some idea of recent philosophical tendencies on a central problem. It is marked by singular clearness of thought and lucidity of diction and by an intense, though restrained, moral and religious earnestness.

In the first chapter Dr. Jevons shows that the naïve belief of the ordinary man in his own personality is contradicted by much recent physical science and psychology. Both sciences apply the principle of parsimony. For both a personal agent is otiose. And this conclusion of modern science is corroborated by the absence of the notion of personality in pre-animism. Dr. Jevons states two theories of pre-animism. On the former view it is held that the concepts of personality and impersonality were differentiated out of some earlier concept of power, something quite indeterminate, neither personal nor impersonal. This theory Dr. Jevons sets aside on the ground that the division of power into power which is personal, and power which is not, is exhaustive. "Power is either personal or it is not" (p. 30). It is possible that in Dr. Jevons's argument a confusion lurks as to the precise meaning of the Law of Excluded Middle. It does not mean that A must be known to be either B or not-B. Pre-animistic man does not know power to be either personal or non-personal. On the other pre-animistic theory it is assumed that pre-animistic man had a conception of impersonality prior to a concept of personality. This view, as Dr. Jevons points out, is illogical, for impersonality presupposes personality in denying it. But it may be noted that this does not necessarily imply that personality is to be attributed to men. Personality may be predicable only of God.

In chapters ii. and iii. Dr. Jevons states fairly and criticises vigorously the relevant doctrines of Hume, James and Bergson. In chapter iv. he develops his own theory, which is akin to Mr. Bosanquet's. But Dr. Jevons draws a sharp distinction between personality and individuality. The term 'individual' he uses in the sense of *individuum*, impervious, impermeable and impenetrable. It is hard to see any reason (apart from etymology and analogy) for running counter to a persistent tendency in recent philosophy in thus restricting the meaning of 'individual'. Personality involves the subject-object relation. (On page 125 "presented to" appears to be an error for "presenting".) This is a relation both

of knowledge and of love. Love is an impulse towards unity. This unity is never attained by human persons. In the Trinity of Divine Persons the unity is fully realised. Many of the difficulties of Mr. Bosanquet's doctrine are reproduced in Dr. Jevons's book, and some are considerably aggravated. The problem of the relation of human personality to the Absolute is not simplified by the introduction of the Trinity. Dr. Jevons has the courage of his convictions in maintaining that our theory must be comprehensive enough to include the Trinity. But he gives very little help on this point to those who have the will to agree with him. He suggests, indeed, that the solution of the whole problem is to be found in Love, which he regards, with Mr. Bosanquet, as "the mainspring of Logic". This seems very much like saying *omnia abeunt in mysterium*. But it may be, after all, that this is all there is to say.

G. A. JOHNSTON.

Common Sense: An Analysis and Interpretation. By CHARLES E. HOOPER. London: Watts & Co., 1913. Pp. iv, 172.

This little book, which is issued for the Rationalist Press Association, contains a discussion of the general nature of common sense, its distinction from discursive reasoning, its origin in mental imagery, its theoretical aspect and relation to scientific knowledge, and its practical significance for society. What is common sense? Mr. Hooper does not consider what other philosophers have said. Aristotle and Reid might never have existed. Common sense plays a part, he holds, both in knowledge and in action. In the former aspect, "common sense is that part of the whole process of consciousness and of the whole complex of personality, which tacitly infers the existence of self and surrounding objects, conceived as singular, concrete and fundamentally material entities" (p. 11). In this definition, two points call for remark. The expression 'tacitly infers' is unfortunate, and strictly involves a contradiction in terms. In any case, common sense simply takes for granted the existence of self and surrounding objects. Further, the last phrase of the definition suggests the so-called psychologist's fallacy. Our reflection on the world as it is for common sense may lead us to hold that that world is a world of "singular, concrete and fundamentally material entities," but common sense does not take it to be so. Mr. Hooper would be well advised to reconsider certain points, *e.g.*, his doctrine of cognitive causation, his theory that the ultimate criteria of truth and evidence are subjective, and his view that we cannot apprehend reality except by studying the perceptions and memories we have of it. The book includes a useful Reference Synopsis, extending to twenty-one pages, and, in an Appendix, an interesting and suggestive classification of the Sciences.

G. A. JOHNSTON.

Hegel's Doctrine of Formal Logic: A Translation of the first Section of the Subjective Logic, with Introduction and Notes. By H. J. MACRAN. Oxford: Clarendon Press. Pp. 315.

This volume presents for the first time in English a faithful and readable translation of the introductory matter and of the first division of the Larger Logic (1816). The division in question, entitled "Subjectivity," contains Hegel's analysis of the traditional formal logic, which treats of concept, judgment and syllogism. Of all parts of Hegel's Logic this should perhaps prove the most accessible to the average student of philosophy, and it is to be hoped that many will be grateful to Prof. Macran for bringing Hegel's fresh and original discussion of a well-worn

subject within easy reach of English students. At a time like the present when rather too much is made of the abstractness and apparent futility of the old formal logic, it is important to learn the best that can be said for its doctrines: and for this purpose it was a happy thought to show the student, through the form of the present translation, how the subject appears under the hands of the greatest of modern scholastics.

Apart from the subtle analysis of the usual topics of formal logic, the peculiar feature of Hegel's treatment lies in his power of connecting the traditional terms, judgments and syllogisms as parts in an orderly sequence of development. This is precisely the characteristic which is lacking in ordinary text-books of formal logic. Whether Hegel's interpretation be successful or not, its suggestiveness can hardly be matter of dispute, and will amply repay the trouble a student may have in following his peculiar style of philosophical exposition.

It is to be regretted that the translator's notes and comments are relatively so short. The notes on the text amount in all to about eleven pages, placed at the end of the volume. There are two long notes, one on Hegel's view of formal logic, as contrasted with popular views, and the other on Hegel's conception of the syllogistic figures. But there was surely abundance of opportunity, and certainly every justification, for illustrating and explaining the various points of Hegel's analysis by copious footnotes to the text. Had this been done, the reader could well have spared the laborious introduction extending to about a third of the volume, which the author has written to put the student in line with Hegel's general philosophical position. Some portions of the introduction will be found clear and good; other parts obscure even to the initiated. But general introductions such as this have now been rendered unnecessary by the work of Wallace and others in the same field. What seems wanted for the effective study of the selected portion of Hegel's system contained in this volume, is a liberal supply of explanatory comments and illustrations which will bring home vividly to the reader the concrete significance of Hegel's highly abstract paragraphs. One would express the hope that the encouragement of a second edition may induce Prof. Macran to meet this want. If he does, he will place those whom he has assisted by this book still further in his debt.

J. B. B.

A Critical Exposition of Bergson's Philosophy. By J. McKellar Stewart. Macmillan & Co. Pp. x, 304.

Mr. Stewart, in his preface, states that the purpose of his work is not exposition but criticism. In order that this criticism may be effectual, the first part of the book is given to an exposition of the central ideas of Bergson's philosophy. Chapter i. deals with "the intuition of pure duration in the life of the self and its spatialisation in the intelligent consciousness": Chapter ii. with "the intuition of the cosmical *élan*, and its condensation into intelligence". The verdict of the second part is summed up in the conclusion (p. 281). "The conclusions to which the preceding criticism has led are, in the main, negative. I have attempted to show that the view of intelligence which preponderates in Bergson's works is not adequately supported; to trace the steps which led him towards this view; and to establish the position that the nature of intelligence is not such as to require it to be supplemented by intuition, but simply by feeling and will. Criticism of the intuition of time and that of freedom was directed to show that they add nothing to the conceptions of these realities which intelligence supplies; that the so-called intuition of time might, with as much justification, be called succession

or becoming, which signifies a backward step in knowledge, the loss of a true distinction, consequently a step towards confusedness; that the time intuited is best described by negatives; that the intuition of freedom is, if anything, that of 'pure indetermination, which has no more right to be qualified as freedom than to be denominated chance'; that it really implies that if the psychologist or the philosopher can say 'here causes cease,' he is entitled to add 'here commences freedom'; that the intuition demands the elimination of cognition altogether, and is of no more value for knowledge of human freedom than a noumenal idea." Whether these contentions are, or can be sustained, is a question too large for the limits of this notice. But the spirit both of the exposition and criticism merits very high praise. Bergson is not easy to expound except in his own words: Mr. Stewart has essayed to remove "the brilliant metaphorical dress" in order to trace the main ideas. The result is a very competent exposition; it is not complete of course, and does not profess to be. The criticism also has its own strong points. The argument is not clouded by too much zeal in tracing the possible parentage of Bergson's views; nowhere is there a trace of captiousness. Mr. Stewart might have dealt more fully with many points raised in *Matière et Mémoire*. Moreover *every* book should have an index.

ARTHUR ROBINSON.

The Purpose of Education. By ST. GEORGE LANE FOX PITT. Cambridge: University Press, 1913. Pp. 83.

The sub-title of this little book is *an examination of the education problem in the light of recent psychological research*, but neither the title nor the sub-title find justification in the contents of the book.

There is very little in its pages which can be said to throw light on the purpose of education, and very little which can be said to reflect the results of recent psychological research.

The last sentence of the final chapter reads "it is the object of these pages to point out that this teaching (*that of the Sermon on the Mount*) is in strict accord with the conclusions of psychological research". As a matter of fact that purpose has not only *not* been realised, but can hardly be said to have been seriously attempted. Almost the only direct reference to modern psychology occurs on page 4, and a few following pages where the author develops the statement: "the study of modern psychology has shown that the mind is composed of a vast number and great variety of pycho-physical complexes".

Not much value can be attached to a book where two such contradictory statements as the following are made within a few pages:—

(1) Page 22. "One of the most important facts, which the investigations of modern psychology has revealed, is the extremely limited range of choice in the determination of his conduct, which falls to the lot of the average child, or indeed, for that matter, of the average human being."

(2) Page 19. "It is quite certain that an individual's tastes, that is to say, his likes and dislikes, his aims and preferences, are not fixed and unchangeable elements, but that they are qualities which can be cultivated, repressed and developed within a wide range of limits."

If a man's "likes and dislikes, aims and preferences" are largely responsible for his conduct the contradiction between the above statements cannot be got over.

On page 52 we have an illustration of careless use of language unworthy of a serious book. "Children," writes the author, "would be discouraged from assimilating false ideals . . . Nobler ideals would be placed before

them . . . Ideals so instilled tend to become *instinctive*." On the next page we find a similar reference to "higher *instinctive* aims," and to "*truer instincts*" which shows that the writer has not realised what "instincts" and "instinctive" mean.

On page 54 the second sentence reads as nonsense owing to a misprint. The book is hardly worthy of the Cambridge University Press.

JOHN EDGAR.

The Evidence for Communication with the Dead. By Mrs. ANNA HUDE, Ph.D. Fisher Unwin, 1913. 1 vol., octavo, pp. 347.

Mrs. Hude tell us in her concluding chapter (p. 332) that she has "presented as much of the material gathered by the researchers as seemed sufficient to yield a basis for the judgment of the question which is the subject of this book". This estimate is sanguine, but she has presented in a readable form a selection of evidence which may certainly be regarded as constituting a case for looking further into the question. On the bearing and value of each item of the evidence so presented she pronounces decisively, and as it were *ex cathedra*, her view being often different in one direction or another from that of the writer of the paper from which she quotes the case. This dogmatism is probably partly a question of style, but it unfortunately leads her sometimes to unwarranted assertions about other people's opinions and attitude of mind.

Most of Mrs. Hude's book is occupied with reviewing a number of papers concerning various automatists, and by different writers, that have appeared in the *Proceedings* of the Society for Psychical Research, and it is from these papers that almost all her evidence is taken. But she is a believer in clairvoyance, including the variety of it called psychometry, and considers that some of the cases she deals with exemplify this faculty. As the Society's *Proceedings* furnish little if any independent evidence of the existence of such a power she preludes her book with what she regards as cases of its operation derived from another source. Telepathy aided by clairvoyance will in Mrs. Hude's view sufficiently explain most of the evidence she discusses, and indeed as regards some of the cases telepathy from the living is so obviously all that is required that one wonders why she included them in this volume. Nevertheless her conclusion is that communication with the dead does occur in a very direct way, and she bases this conclusion on Mrs. Piper's trance utterances. She is deeply impressed with the successful dramatisation of the characters that play a part in them, and the combination of this with knowledge which the medium cannot have possessed normally, appears to her beyond what it is reasonable to attribute to a subliminal self.

Idealism in Education. By HERMAN HARRELL HORNE, Ph.D., Professor of the History of Philosophy and the History of Education, New York University. New York: The Macmillan Company. Pp. 184. Price 5s. 6d.

This is a book which, though hardly true to its title, may have a value in lifting the popular mind to the broader and deeper aspects of Education.

"Idealism," writes the author in his preface, "finds ideas and purposes to be the realities of existence; and personality, which is the union of ideas and purposes, to be the ultimate reality." It is doubtful whether many thoughtful minds will accept this explanation of the ultimate reality, but it is quite certain that the two sentences contained in the next paragraph are mutually inconsistent.

"Educating is the purposeful providing of an environment" . . . so

"educating is really a relation between personalities of different degrees of maturity."

After an introductory chapter on "Man-making" as the problem of education and the occupation of the ages, the author discusses the forces which make men and women, *viz.* heredity, environment and will. "Education, through public opinion, influences, and may come to contest heredity; it is itself a part of the physical and social environment; it assists in the formation of will."

"To aim at the perfecting of humanity in the image of divinity, is *idealism in educating.*"

It is the duty of teachers "to recognise, appreciate, and apply, with all parents and citizens, the last of the first principles in the making of men and women, *viz.* eugenics, eutopias, and eunoias are the chosen means of the Divine Purpose in perfecting mankind".

In spite of its showy rhetoric, and its somewhat crude and undigested philosophy, the book may help to lift education out of the slough of monotous routine and lead the imperfectly educated teacher to realise the dignity of his calling.

JOHN EDGAR.

The Life of Blessed Henry Suso by Himself, translated from the original German by T. F. KNOX, Priest of the Oratory, with an Introduction by W. R. Inge, D.D. London: Methuen & Co. Ltd., 1913. Pp. xxxviii, 254.

Suso's remarkable self-revelations have too long been recognised as among the great classics of mystical literature to require any word of criticism or recommendation. It is enough to call the attention of lovers of mystical literature and students of the psychology of the religious life to the present reissue of a translation first published half a century ago. Knox's version is always graceful and dignified, and often rises (as in the rendering of the well-known chapter in which Suso expounds the significance of the *Sursum Corda*) to rare and real beauty of expression. The externals of the volume have been well cared for by the publishers; the type is clear and pleasant and there is an admirable freedom from printer's errors. (I note, however, the following, p. 130, l. 2 from below (fides tua) *et* salvam (fecit) for *te* salvam, etc.; p. 136, l. 13 from below, to *block* out (thy image) for to *blot* out, etc.; p. 20, l. 20-21 anima mea desi der avit te for desideravit te. The remarkably low price of the book (3s. 6d. net) is a further recommendation. The Dean of St. Paul's has provided the present reissue with a brief but adequate *Introduction* which an ordinary reader, not widely versed in the writings of the mystics, should find serviceable.

A. E. T.

Les Œuvres de Siger de Courtrai. G. WALLEBRAND. Louvain, Institut Supérieur de Philosophie de l'Université, 1913. Pp. vii, 174.

M. Wallebrand's careful edition of the extant works of Siger of Courtrai, (not, by the way, to be confounded with his greater namesake and countryman Siger of Brabant), forms the eighth volume of the magnificently printed and remarkably inexpensive series, *Les Philosophes Belges*, of scholastic texts with which the University of Louvain is enriching the store of materials available for the study of mediaeval philosophy. Unfortunately it could only be properly appreciated by a possessor of the same specialist knowledge of the currents of mediaeval thought which is enjoyed by the learned editor, and such knowledge is hard to find in this country. There are few developments of human thought for the history of which so little

has as yet been done as is the case with Grammar. M. Wallebrand's work is a valuable contribution to one as yet almost unexplored chapter in the history of Grammar. The writings of Siger of Courtrai, which he has provided with careful Prolegomena, are mainly interesting as revealing the kind of treatment given to grammatical problems in the early years of the fourteenth century when the devotion of the great philosophical schools to the logical works of Aristotle was on the way to extinguish genuine interest in both philosophy and language by concentrating the attention of University students almost wholly on the logical subtleties which must be mastered by the aspirant to victory in the game of public intellectual fence. Hence it is characteristic of the time that Siger should be mainly interested in what would now be called "philosophical" grammar. His great concern is, while claiming for the grammarian a right to study the verbal expression of thought for its own sake, and from a point of view which does not coincide with that of the formal logician, yet to define and fix the relations between grammatical classifications and the logical scheme of categories and predicables. This comes out most interestingly in the *Sophismata* where a number of equivocations which might give rise to logical antinomies are solved by the process of careful distinction between the grammatical and the logical functions of different parts of speech. For instance, is the assertion "*Amo* is a verb" a true proposition? and if it is, how can a verb "*Amo*" "suppone" for anything? Is an "ablative absolute' "governed" by any word, or by all the words, of the main enunciation? Besides the collection of *Sophismata* the volume includes a fragment of a "philosophical grammar" dealing with the problem what precise relations are signified by the various parts of speech (*Summa Modorum Significandi*), and a brief exposition of Formal Logic on the lines of Aristotle's *Prior Analytics* (*Ars Priorum*). The modern developments of logic seem, as Mr. Bertrand Russell has remarked, to be making the problems of "philosophical grammar" real for us again, and thus a specimen of the way in which these same problems were treated in mediaeval times may have its special interest for at least some of the philosophers of the present.

A. E. T.

Le Rapport Social. Essai sur l'Objet et la méthode de la Sociologie. Par E. Dupreel, professeur à l'Université de Bruxelles. Librairie Félix Alcan. 5 francs.

If Sociology is to be a separate science, it must have a method and a terminology of its own. It must not depend on those of biology or of mathematics. The object of this essay is 'proposer une notion générale qui soit un bon instrument pour les recherches de sociologie et qui ne soit que cela'. The sociologist must first answer the questions: Is Sociology possible? if possible, is it an independent science? if possible and independent, should it be treated as one science, or a group (political economy, law, history, etc.)? The sociologist defends the claim of sociology to be a science; 'c'est l'idée préconçue de la science comme une forme rigide et immuable qui a donné naissance aux controvenes sur la possibilité on l'impossibilité de la science sociale'. Sociology is a science, but it is not bound to start with a definition. It combines facts of biology, of psychology, and physical phenomena which are not treated, in their mutual relations, by any other science. It is this relationship that Sociology brings out and studies. The question, then, is: 'Quelle est l'expression le plus simple de la combinaison d'éléments psychologiques et d'actes physiques qu'on retrouve dans tout ce qu'on tient

pour social ?' The answer our author finds is 'le rapport social'. 'Je dis qu'il existe un rapport social entre deux individus donnés, lorsque certains états psychologiques de l'un d'eux—connaissances, sentiments, volontés—et certaines actions accomplies par lui dépendent de l'existence et de la manière d'être de l'autre individu, et réciproquement.' This proposed method is tested by application to law, political economy, ethics, religion, art and science, in a series of sketches full of life and interest. The author then deals with sociological method and laws. He insists on the supreme value of observation: 'Le rapport social ne contient rien qui ne soit directement accessible à notre observation'. Then follow two attractive (and occasionally provocative) chapters on the laws of equality and inequality, and on confused and clear notions. The author maintains that it is with confused notions that Sociology is specially concerned, because 'les notions confuses ont pour siège une multiplicité de consciences'. There is an appendix on the philosophic treatment of confused knowledge, especially in Descartes, Spinoza and Leibnitz. The book is well written and is not least interesting when we cannot accept its conclusions.

H. Butler Smith.

Schopenhauers Erkenntnislehre, als System einer Gemeinschaft des Rationalen und Irrationalen, Ein historisch-critischer Versuch. Von Heinrich Hasse. Leipzig: Felix Meiner. Pp. ix, 217. M. 6, geb. 7.

A side of Schopenhauer's theory of knowledge, that has hitherto lacked systematic investigation, forms the chief subject of Dr. Hasse's learned and detailed study, for which he has used the whole Schopenhauer corpus, including the recently published lectures and early manuscripts. How do we apprehend as Will the world we only know as Idea? Schopenhauer, while still a very young man, accepting the Kantian proof of the phenomenality of Nature, formed the conviction that the ultimate reality could be apprehended by intuition. This belief found early expression in the conception of a "better consciousness" (p. 149), again in his æsthetic version of the Platonic Ideas (p. 81), and in one form or another persisted throughout his life. Hence his theory of knowledge in the widest sense may be regarded as a combination of a rational agnosticism with a belief in an irrational metaphysical knowledge (p. viii). Schopenhauer himself never gave a reasoned account of the power by which consciousness transcends the world of Vorstellung (p. 56), but Dr. Hasse finds six different varieties of it, the intuitive knowledge of self, the intuitive knowledge of the world (Platonic Idea), the special intuition of the artistic and moral genius, the special insight of early races as manifested in their mythology and philosophy, supernatural forms of intuition (*e.g.*, dreams and occultism) (pp. 72-139). It is only by the careful comparison of passages scattered throughout the works that Dr. Hasse has been able to determine the epistemological presuppositions of the theory. This "irrational" knowledge, as Dr. Hasse terms it, adopting a casual expression of his author's (p. 23), is characterised, in opposition to rational or scientific knowledge, by (1) its freedom from the law of relativity (Satz vom Grunde), (2) its universality (concrete, not abstract), (3) its intuitive nature, (4) its freedom from the influence of the will (p. 108).

The fundamental difficulties of the doctrine, arising largely from the apparently unbridgeable chasm which Schopenhauer interposes between the ideal and the real, how, for example, the primary opposition between subject and object can be transcended (p. 77), how there can be degrees of knowledge between the knowledge of mere phenomena and that of the real, are discussed by Dr. Hasse in the spirit of an "immanent" critique

which seeks to understand the system from within. Thus the conception of an intuitive knowledge of the outer Nature that lies behind the veil of Maia (as in the "divinatory" insight of the Indian Philosophy) seems to contradict the principle elsewhere laid down as cardinal, that the pathway to reality lies through the *subject* and not through the *object* of ordinary knowledge. Dr. Hasse expresses this by attributing to Schopenhauer two distinct ways of treating irrational knowledge (pp. 140 ff.), as leading to the knowledge of the real (1) directly and independently of rational knowledge, (2) gradually and indirectly through rational knowledge.

The thorough discussion of other difficulties that beset a theory of intuitive metaphysical knowledge (sub-rational or supra-rational, for both forms appear in Schopenhauer) is of special interest at the present day.

Dr. Hasse insists that to understand Schopenhauer's attitude we must rely on his own statements about the nature and value of irrational knowledge rather than on the use he makes of it in his system of metaphysics. If a complete epistemology is to be extracted from the works of Schopenhauer, it must undoubtedly be summed up in some such formula as that given by Dr. Hasse. But, as Dr. Hasse admits, Schopenhauer always tends to look at the question of knowledge from the standpoint of metaphysics or psychology. This is specially true of his attitude towards irrational knowledge; his account of rational knowledge is full and complete, being in essence the Kantian account, with important modifications derived from the Berkeleian nominalism and idealism; but his theory of irrational knowledge seems to merge into his metaphysics. The course of Schopenhauer's thought appears to have been something like this. If there is knowledge of ultimate reality, all its characteristics must be diametrically opposed to those of phenomenal knowledge, because the real is entirely different from the ideal. The artistic genius has universal intuitions distinct from the abstract concepts of scientific knowledge, the Indian philosopher has a vision of a concrete reality utterly different from phenomenal reality. Therefore these give a higher truth. Why this "therefore"? Because reality *is* Wille and not Vorstellung. These intuitions *verify* the metaphysical theory. In some of his moods Schopenhauer is ready to accept any experience of an abnormal nature as providing a supernatural intuition, and, as in the case of the Traumorgan (p. 137), erect it into a special faculty of truth. However we may disagree with M. Bergson's notions of an empirical and intuitive metaphysic, which Dr. Hasse seems inclined to contrast unfavourably with Schopenhauer's, his methods are not so arbitrary as this.

The book displays on every page the learning and balanced judgment of the author. It is provided with copious references both to the literature of Schopenhauer and to the philosopher's own works. The latter would have been more serviceable to the general reader if they had been made in a fuller form; as it is, the citations are made by the volume and page of the Reclam collected editions, and are thus useless to any one who has not these at hand.

C. M. Gillespie.

Hegels Samtliche Werke; Band vii.: *Schriften zur Politik und Rechtsphilosophie.* Herausgegeben von Georg Lasson. Leipzig: Felix Meiner, 1913. Pp. xxxviii, 513. M. 7.

This seventh volume of Lasson's edition of Hegel's works gathers together Hegel's minor writings on Politics and on the Philosophy of Right. On Politics there are three essays, "Die Verfassung Deutschlands" (1802), "Verhandlungen in der Versammlung der Landstände des Königreichs

Württemberg im Jahre 1815 und 1816" (1817), and "Über die englische Reformbill" (1831). On the Philosophy of Right there are two: "Über die wissenschaftlichen Behandlungsarten des Naturrechts" (1802), and "System der Sittlichkeit," written probably a few years later.

It cannot be claimed that these writings are among Hegel's most important works. But they merit more attention than they have hitherto received: and it is something to have had them collected into one convenient and accessible volume. There is an affinity of problem and of treatment throughout that gives it much more than a formal unity. The essays on politics, of course, are largely concerned with matters of local and temporary importance. But they are not devoid of significance for modern political thought. The settings and circumstances of the problems have changed: but the problems themselves remain, possibly even in more acute and urgent forms than in Hegel's day. It is undoubtedly true, *e.g.*, that Hegel was moved to write his criticism of the English Reform Bill by fears which experience proved to be, at the moment, groundless. But it is equally true that the difficulties that Hegel saw in the path of a new democratic country were no mere figments of his imperfect understanding, but do still, in gravest truth, beset all self-governing communities.

The main value of the essays lies in the light that they shed on the development of Hegel's philosophical thought. They show his lifelong and profound interest in the activities of social and religious life. They prove that from 1802 onwards, Hegel's system was substantially complete. And they witness to his conviction that his system was thoroughly relevant to actual facts and history.

From beginning to end, Hegel's central doctrine is that "the facts of social and religious life are conclusive proofs of Objective Reason, and are therefore the key to the understanding of Reality as a whole" (ix). The institutions of political communities are the meeting points of subjective and objective mind, or the sphere of the realisation of positive freedom. The problem of all three of the essays on politics is just the problem of Freedom. In the English Reform Bill, written in the year of his death, he distinguishes between 'formal' and 'real' freedom. But precisely this same distinction is implied in his essays of 1802 and 1817. Indeed, it is to the prevalence of a false and abstract notion of freedom that he traces all the troubles of Germany and of Wurtemburg.

The same fundamental notions are examined in his two writings on the Philosophy of Right, and examined in such a way as to presage their fuller and more systematic treatment in the 'Rechtsphilosophie' itself. Both of the essays carry the marks of the Romanticism of Schelling: but they both of them definitely outlined the problem that engaged the whole strength of Hegel's maturer ethical and political reflexion. Their theme, at bottom, is the reconciliation of subjective and objective right achieved in the inner agreement between the moral freedom of the individual members of the State and the moral spirit of the community. Most significant of all, perhaps, is the powerful criticism of both the empirical and *a priori* methods in previous ethical speculation. It is through this criticism that Hegel puts himself at a profounder point of view than either of these, from which he can achieve the fruitful constructions of the Rechtsphilosophie.

Hegel's "Introductions" to his several works are supremely interesting: but none of them furnishes an easy entrance into his system. He has not been generous in the matter of propaedeutics, and one is at once in *mediis rebus*. If this volume does not conduct the reader very far into the system, at least it leads him by a way that is comparatively easy and not uninteresting. It is all the more valuable for that. And its

value has been heightened by the editor's very competent and helpful introduction, which makes the initial steps as plain and smooth as they can well be made.

H. J. W. Hetherington.

Thomisten Schriften, I. Philosophische Reihe, Bd. I. Thomas-Schriften, I. A. Michelitsch. Graz and Vienna, 1913. Pp. xii, 252.

The series of which the present work is the opening volume is intended to consist mainly of translations of the works of St. Thomas and his pupils. Of the great value of such a series to students of philosophy I need hardly say anything. If all the volumes are as thoroughly done as the first the result should be that St. Thomas will become as accessible to future historians of thought as Aristotle or Kant. Naturally enough this opening volume is concerned with the bibliographical material available for the understanding of Thomas. We have a careful enumeration of the extant authorities for the biography of the saint with a full account of the character and present location of the MSS. in which they are contained and an adequate summary of the facts they record. On this follows a very careful list of the extant MSS. of the whole or parts of the Thomistic *corpus*, and a full account of their distribution over the various libraries of Europe, as well as a reproduction of the ancient lists of the saint's works contained in the biographical sources, the records of the process of his canonisation and the early catalogues of mediæval libraries. We are promised in a second volume a critical treatment, based on these materials, of the problem of the authenticity of individual works, and in a third, a discussion of the "spurious" works. I can but congratulate Prof. Michelitsch on the thoroughness with which his initial "spade-work" has been performed. The net results of his researches in the libraries of Europe have been digested into a series of exceedingly useful tables or conspectuses, and the volume has been enriched by several excellent plates including a reproduction of an authentic portrait of St. Thomas procured at Viterbo and a facsimile of an autograph page of the *Summa contra Gentiles* from a MS. in the Ambrosian Library at Milan.

A. E. Taylor.

Die Hermeneutische Antinomie in der Talmudischen Literatur: von Prof. Dr. Adolf Schwarz, 1913. 211 pp. M. 7.

This work is a continuation of the author's studies in the logic of the Talmud. They are of great value to specialists in the Jewish Oral Tradition, with the mysteries of which Dr. Schwarz has a profound acquaintance. There would seem to be no other works in any European language which are as helpful to those who would master the rabbinic reasoning. The study has rarely been pursued except by members of the Jewish community, but (at least in the present writer's opinion) it is indispensable for the understanding of the New Testament, of which the earliest portions in their earliest form are saturated with rabbinism. Where Dr. Schwarz appears throughout to be mistaken is in identifying principles of interpretation with the logic of science. His phrase *Hermeneutische Antinomie* seems to mean "modes of detecting and reconciling inconsistencies in the legislation and theology of the Old Testament"; something analogous to these is to be found in the Aristotelian criticism of Homer, but their connexion with logic appears to be slight. The value of his works appears however to be very slightly affected by this misconception, as we deem it, and, like its predecessors, this book will be read with profit by students of its subject.

D. S. Margoliouth.

Immanuel Kant, Kritik der reinen Vernunft. Neu herausgegeben, von THEODOR VALENTINER. Zehnte, um ein Sachregister vermehrte, Auflage. Pp. xi, 861. M. 4.60.

Immanuel Kant, Kleinere Schriften zur Geschichtsphilosophie, Ethik und Politik. Herausgegeben, eingeleitet und mit Personen und Sachregister versehen, von KARL VORLÄNDER. Pp. lxii, 226. M. 3.

George Berkeley, Siris. Übersetzt und herausgegeben, von LUISE RAAB und Dr. FRIEDRICH RAAB. Pp. xxiv, 139. M. 3.50.

Platons Dialog Gorgias. Übersetzt und erläutert, von Dr. OTTO APELT. Pp. 184. M. 2.40.

All the above are published at Leipzig by Felix Meiner, and are fresh volumes of his excellent *Philosophische Bibliothek*, previous volumes of which have already been favourably noticed in this review. We have here a compact and clearly printed edition of the *Kritik* at a reasonable price, while all the books maintain the high standard of this series.

Der Wirklichkeitsdualismus in seiner konkretesten Gestalt, eine erkenntnistheoretische Begriffsbestimmung. By K. W. SILFVERBERG, Leipzig; A. Kröner, 1913. Pp. 76.

In spite of his Scandinavian name the writer of this pamphlet appears to be an American who has translated it from English into German with the help of the dictionary. Presumably the work is a 'doctor-dissertation'; it belongs at any rate to this style of literature. The author is an ardent pragmatist, whom James's question about the existence of 'consciousness' has moved to fall foul of the 'subject-object' relation, which he denounces as intellectualistic and useless. If he had anywhere explained clearly just why he holds this, and had in addition indicated his plan or summarised his argument, he would have rendered it easier to appreciate the value of his work.

La Dottrina Positiva delle Idealità. GIOVANNI MARCHESINI. Athenæum, Rome, 1913. Pp. viii, 328.

The main object of the author is to vindicate Positivism in Ethics against its critics by building up a consistent and lofty theory of morals and of moral education on a basis of pure "fact," biological and psychological. "Ideals" are to be shown to be the natural outcome of the interaction between the biological and psychological endowments of the individual and his environment. No metaphysical theory is required to account either for their origin or for their potency. If Mr. Marchesini's work be regarded primarily as a contribution to the Phenomenology of Morals, it deserves, in my opinion, great praise. His observations on the facts of moral action and feeling are often excellent, and his account of the processes by which moral ideals are imparted in education, or again modified by the environment, careful and frequently acute. Though I cannot subscribe to his view that Pride—conscious self-complacency in one's own ethical attainment—is the supreme virtue, and Humility positively vicious. If we are to pitch the moral ideal at all high (and Mr. Marchesini, in spite of his description of his own doctrine as *naturalism*, pitches it very high), I should have thought the best of us must be too keenly conscious of the gulf between our attainment and our ideal to contemplate ourselves as so many Jack Horners. Can Mr. Marchesini

really regard the sincere and conscientious Pharisee as the moral culmination of humanity? How long would moral advance continue among men who habitually thought of themselves as having "already attained"? Honestly I cannot help suspecting that the author's judgment has been unconsciously biassed by a confusion between real and spurious humility, or possibly by anti-clerical influences. On the other hand, Mr. Marchesini gives full recognition to the indispensability of the conceptions of freedom and responsibility, and definitely rejects the crude necessitarianism which has sometimes been professed by British "positivists" as a corruption of the genuine doctrine. Though he calls his ethical theory "naturalism" and professes to build it up by the "methods of science" on a basis of mere "fact," he is careful to insist that there are moral facts as well as mechanical and biological facts.

On its negative side, as a polemic against Metaphysics, I do not find the work very original or very satisfactory. Indeed, it seems to me that the author, like many anti-metaphysicians, is continually appealing to metaphysical concepts of his own. Thus he finds it impossible to proceed without constant references to the reality of "individual personality," of "law," of "causality". In what sense of the word fact are any of these things "facts," and if you define "fact" so as to admit them, have you not forfeited the right to dismiss such concepts as those of God, the Absolute, the *Summum Bonum*, on the plea that knowledge deals only with "facts"? Mr. Marchesini, to be sure, has a short and easy way with all such "transcendent" notions. He asserts as an article of faith that they are poetic fictions, creations of the "fine art" of speculative thought, and thus devoid of any higher claim to reality than the imaginary characters of a drama or a novel. The same thing is said of all ethical "ideals"; "Pure Justice," "the Kingdom of God," the Christian "love of the brethren" are all unrealities, artistic fancies which cannot be realised, though the author assigns great practical as well as æsthetic value to these "romantic" creations, inasmuch as they influence conduct and make the attainment of such "relative" goodness as is really possible easier. Now one would like to ask one or two questions of those who repudiate the "transcendent" in this thorough-going fashion. We may grant that the rejected ideals have been practically beneficial in the past, but is not that due to belief in their reality? How long is their usefulness going to survive the proclamation that they are all pure unrealities? Or again, Mr. Marchesini definitely asserts that no ideal norms are more than very imperfectly and remotely realisable. How does he know this, how *can* he know it on the positivistic theory of the limits of knowledge? If he knows it, would he not be acting more virtuously in keeping the dispiriting piece of knowledge a secret? It is scarcely advisable that a teacher of morals should tell his pupils that there are temptations they will meet with of which he *knows* for certain that they will not have the strength to resist them. And how can he consistently blame any pupil for any misdeed whatsoever, seeing that positive science will never demonstrate that this particular temptation was not just one of those which this given man had not the power to resist? What is equally serious, Mr. Marchesini believes in moral progress. He believes that we are morally better than our fathers and that our descendants will be better than we are. But what right has he, as a positivist, to know this? Can positive science prove either (*a*) that the moral history of our race will not exhibit progress up to a certain *acme* followed by decline, or (*b*) that the *acme* has not already been attained? Or, to put yet another question, is it consistent with the purely positivistic theory of ideals to hold that I may have obligations of which I have never been, and perhaps never shall be, conscious?

Common-sense has always held that it *is* possible to be under real obligations and yet to ignore them completely. Mr. Marchesini seems to be of the opposite view that an unfelt obligation has no existence, and on positivistic principles he seems to me to be right. But is he prepared to admit the inevitable corollary that I can escape from a moral obligation by blunting my sensibility to it? We cannot simply refuse to face ethical problems of this kind, and the solutions to which we are driven when we accept the premisses of positivism seem to do outrage to moral common-sense. May this not be a good reason for doubting the sufficiency of the methods of natural science in ethics?

A. E. Taylor.

Il Concetto del Diritto. Giorgio del Vecchio. Bologna, 1912. Pp. 155 (reprint).

Prof. del Vecchio is well known as a thoughtful and lucid writer on a branch of philosophical study which is perhaps unduly neglected in our own country at present, the metaphysics of jurisprudence. The main object of the present essay, which is reprinted from a former issue of 1906, is to provide a philosophical definition of "right" such that it excludes the positivistic reduction of right to might, and at the same time forms a satisfactory basis for the distinction between the spheres of jurisprudence and ethics. Two of the six chapters are concerned with an exposition of the author's main thesis as to the field and criterion of those human acts which fall within the purview of the law; the remaining four deal with the notion of "right" as a normative concept, the correlative notion of a legal "claim," and the connexions between rights and coercion, and rights and interests. In principle the writer's views are more closely akin to those of Fichte than to any other philosophical theory. In this country, where, ever since the downfall of Benthamism, practical philosophy has tended to concentrate itself on ethical questions and to fight shy of the very conception of what used to be called in Scotland "natural jurisprudence," the main interest of the work will probably be found to lie in the two opening chapters. In the first of these the writer corrects a tendency which is too common among ourselves to confuse the very different notions of legal imputability and liability to punishment. His point is the sound one that for juristic purposes any act which expresses a volition is "imputable" to the agent independently of the question of his liability to punishment. Thus *e.g.* the act of a lunatic who commits assault or homicide is not punishable, but it is imputable to him as an agent. This is shown in practice by the fact that though the law does not punish the lunatic it does order the detention of the criminal lunatic. Similarly the act of a minor, though law may actually declare it not to be binding (as *e.g.* in the case of contracting a debt or a marriage), has its juridical aspects (the law may intervene to prevent his squandering his property or contracting a marriage without the consent of his guardian, etc.). Hence the popular doctrine that certain acts which fall within the domain of ethics are excluded from that of jurisprudence arises from confusion of thought. So again the common distinction, made *e.g.* by Green, that law deals only with *external* acts, not with *intentions* or inner determinations of the will, is unsound. What Green has in view is merely the fact that *punishment* is awarded only for overt exterior action. This has not always been the case historically as the existence of laws against heresy (as distinguished from the *publication* of heretical opinions), proves. Such laws, in fact, actually permit the divulgation of heresy in the very act of punishing the heretical

opinion, as when *e.g.* they permit the heretic to escape the whole or part of the penalty by a confession of his guilt to a tribunal. And every conceivable legislation must provide for the consideration of "intention" in determining the penalty to be inflicted for an act. (In fact, in our own law surgical operations which are otherwise legitimate become grave offences if they are shown to have been performed "with intention to procure abortion," and again the proved or presumed "intention" may make all the difference between murder and manslaughter.) Thus the difference between ethics and jurisprudence is not one of scope. All acts which involve a volition fall under the consideration of both, and the only behaviour of which jurisprudence, from its own nature, can take no account, is behaviour which is not really action, the expression of will, at all; this is equally excluded from the scope of the ethical judgment. Prof. Del Vecchio's own distinction between the ethical and the juristic points of view is that the moralist's judgment is based upon the relation of an act to other possible courses of conduct on the part of the same agent; the jurist's upon the relation of the agent's act to the possibilities of its interference with the acts of other agents. *I.e.* when we pronounce a given act morally right or wrong, we are implicitly comparing it with the other ways in which the agent might have acted in the given conditions, —a point of view which has recently been insisted upon by Dr. G. E. Moore; the decision of jurisprudence on the rightfulness or wrongfulness of the act depends upon its possible interference with the freedom of action of another agent. Other points of interest will be found in the discussion of the legitimacy of recognising a class of purely "permissive" laws, and of the connexion of law with constraint. The author rightly, in my opinion, insists that the laws of jurisprudence, like those of ethics, are essentially imperative; the so-called "permissive law" is really a prohibition against interference with the agent who takes the steps which are "permitted," and a merely "declaratory" law is not really a law at all, unless taken in conjunction with the other laws whose meaning it makes explicit. When thus taken with its context, it forms part of a genuine imperative. The courts *e.g.* are *commanded* to understand the phraseology of the laws affected in a certain determinate sense. (*E.g.* the decision that "person" in the laws relating to Parliamentary elections means "male person" are imperatives forbidding the election officials to accept the balloting paper of any female person who may attempt to vote.) As to the connexion between law and coercion, it follows from the imperative character of law that every law presupposes the *possibility* of coercion in the case of its violation, though not, of course, the *fact* of the exercise of coercion. Even in the Spencerian New Jerusalem, if legislation continued to exist, it would be because the possibility of violations of law was contemplated, and the laws would have to make provision for coercion in the case of such violations. It is not coercion but coercibility which is implied in the concept of law.

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VIII.—PHILOSOPHICAL PERIODICALS.

Philosophical Review. Vol. xxii., No. 5. **J. W. Scott.** 'Idealism as Tautology or Paradox'. [In arguing that idealism rests upon tautology (Moore) or paradox (Perry), the critic is attacking not idealism itself but Berkeley's immature formulation of it; idealism is a doctrine of the structure, not of the matter, of reality.] **O. Ewald.** 'German Philosophy in 1912.' [Deals mainly with the reaction against logicism.] **T. De Laguna.** 'The Nature of Primary Qualities.' [Elementary physical properties and relations form a system of concepts which can be used almost indifferently to define one another, but which cannot be defined in sensational terms. The concepts rest upon incomplete induction (things in general are at rest, do not change in length) which, however, proves in practice to work.] **C. E. Cory.** 'Bergson's Intellect and Matter.' [Bergson in primarily interested in division and analysis; the work of integration is seldom done with equal care; so that a distinction of kind is apt to appear, later in his system, as one of degree only.] **J. F. Dashiell.** '"Values" and the Nature of Science.' [Values are immediately given and form a fundamental category; science arises as a process of definition and analysis of values with a view to ultimate manipulation; the category of the subjective finds its place in the functional classification of worths.] Reviews of Books. Notices of New Books. Summaries of Articles. Notes. Vol. xxii., No. 6. **B. Muscio.** 'Degrees of Reality.' [Idealism has used the notion of degrees of reality as a premiss from which to infer the nature of the universe, and for the purpose of arranging in a hierarchy certain parts of the universe. In the former case its procedure rests entirely upon faith; in the latter its problem is ethical and psychological.] **H. W. Wright.** 'Practical Success as the Criterion of Truth.' [Practical success, as voluntary achievement, has three criteria of belief: intellectual consistency, technical efficiency, emotional harmony. In ultimate questions, all three criteria must be applied.] **D. W. Fisher.** 'The Problem of the Value-Judgment.' [Every value is related to a subject in the sense of being emotionally valid for it. The peculiarity of the value-judgment lies at a pre-judgmental level, and does not concern the formal character of the total act of judgment.] **N. C. Barr.** 'The Dualism of Bergson.' [Bergson begins with the sheer dualism of inner and outer; rises to the more comprehensive categories of mind and body; and seeks an inclusive synthesis in the mutual dependence of life and matter. But for a real synthesis life and matter must be processes constitutive of a Self.] Reviews of Books. Notices of New Books. Summaries of Articles. Notes. Vol. xxiii., No. 1. **A. A. Bowman.** 'The Problem of Knowledge from the Standpoint of Validity.' [Critique of the Kantian epistemology. The ultimate motive of the critical philosophy is the formulation of the general concept of validity. It is proposed that knowledge be considered as a special case of this concept.] **J. A. Leighton.** 'Truth, Reality and

Relation.' [Critique of neo-realism. From the philosophical standpoint there can be no absolutely independent facts, out of all relation to other facts, or themselves devoid of relational structure.] **D. C. Macintosh.** 'Hocking's Philosophy of Religion: An Empirical Development of Absolutism.' [Criticism of "The Meaning of God in Human Experience".] Discussion. **W. P. Montague.** 'Unreal Subsistence and Consciousness: A Reply to Prof. Lovejoy.' [Defends the doctrines of unreal subsistents and of hylopsychism; agrees with Lovejoy as regards the menace of relativism.] Notices of New Books. Summaries of Articles. Notes. Vol. xxiii., No. 2. **E. B. McGilvary.** 'Time and the Experience of Time.' [Discusses the nature of temporal experience and the relation of time and space; the specious present ("what is physically past may without contradiction be empirically present"); the theory of Bergson; and the temporal experience of the Absolute.] **A. A. Bowman.** 'The Problem of Knowledge from the Standpoint of Validity, ii.' [Knowledge represents the strictly theoretical form of validity. We must then inquire what is implied in a validity which can be predicated in the same sense of scientific and non-scientific knowledge.] **J. E. Creighton.** 'The Standpoint of Psychology.' [Psychology should seek to discover the concrete 'idea' of mind by analysing its activities and comprehending its purposes and systems of value.] **E. G. Spaulding.** 'Report of the American Philosophical Association: the Thirteenth Annual Meeting, Yale University, New Haven, Conn., December 29-31, 1913.' Reviews of Books. Notices of New Books. Summaries of Articles. Notes.

Psychological Review. Vol. xx., No. 6. **P. W. Cobb** and **L. R. Geissler.** 'The Effect on Foveal Vision of Bright Surroundings.' [A test-object is better discriminated when set in a slightly brighter field than when seen in dark surroundings. Capacity of vision for test-objects of relatively low brightness is lowered by a surrounding field of relatively high brightness. There are individual differences.] **A. Wyczoikowska.** 'Theoretical and Experimental Studies in the Mechanism of Speech.' [Lingual reactions are brought out by pressure of the right thumb, and by speech heard, thought or sung. Neural connexions can be made out.] **H. S. Langfeld.** 'Voluntary Movement under Positive and Negative Instruction.' [Analysis of execution of a skilled movement under the two instructions. The individual's performance shows great variation. Two attitudes, positive and negative, may be distinguished; the latter involves initial inhibition of antagonistic muscles. Imagery, at first necessary, may drop out as control is acquired.] **T. L. Kelley.** 'The Association Experiment: Individual Differences and Correlations.' [Correlates the test with class standings in mathematics, science, and foreign languages. Concludes that the free association experiment yields results which are indicative of the ability of the observers.] **R. MacDougall.** 'The "Coloured Words" of Art.' [In the literary as in the plastic arts, the material is refractory; language conceives the world as a problem for the understanding. Hence the artist has recourse to various devices of invention, selection and manipulation.] **L. L. Smith.** 'Whipple's "Range of Information Test".' [Data from college students.] Vol. xxi., No. 1. **H. L. Hollingworth.** 'Individual Differences Before, During and After Practice.' [It is necessary, in arguing from individual differences disclosed in a series of simple tests, to distinguish sharply between temporary proficiency and ultimate capacity.] **D. O. Lyon** and **H. L. Eno.** 'A Time Experiment in Psychophysics, ii.' [Continuation of work reported in xix., 4. The former result is confirmed, and the hypothesis of a tem-

poral disjunction of cortical and mental process is repeated.] **P. W. Cobb.** 'The Effect on Foveal Vision of Bright Surroundings, ii.' [A test-object set in surroundings of approximately equal or of less brightness is consistently discriminated neither better nor worse than when seen in dark surroundings.] **A. M. Feleky.** 'The Expression of the Emotions.' [Judgments of 100 persons upon twenty-four photographs of the same person posed for the facial expression of various emotions; the photographs are given.] **H. M. Johnson.** 'A Slit Mechanism for Selecting Three Measurable Monochromatic Bands.' **B. H. Bode.** 'Psychology as a Science of Behaviour.' [In conscious behaviour the stimulus undergoes a 'reconstitution' (Dewey), whose goal is a stimulus able to evoke a final response in which the confusion of the several partial responses is harmonised.] **K. Dunlap.** 'The Self and the Ego.' [In discussing experience we postulate the items experienced, the experiencing of these items, and that which experiences.] Discussion. **J. W. Baird.** 'The Phenomena of Indirect Colour Vision.' [Reply to Rand.] Vol. xxi., No. 2. **H. C. Warren.** 'The Mental and the Physical.' [Mental and physical activity are but two aspects of one series of events (monodualism); hence psychology must study both behaviour and consciousness, and must assume that mental phenomena (choice, reason) are as uniform as physical occurrences.] **C. Spearman.** 'The Theory of Two Factors.' [Exact method applied to the experimental data of Simpson and Thorndike confirms the theory, and there is no contrary evidence.] **A. H. Pfund.** 'On the Use of the Rotating Sector in Photometry.' [The experiments of Parker and Patten do not invalidate Talbot's law.] **M. L. Billings.** 'The Duration of Attention.' [With simple supraliminal stimuli the average duration is but a little over two seconds.] **E. K. Strong.** 'The Effect of Size of Advertisements and Frequency of their Presentation.' [The value of space increases approximately as the square root of the area; with short time-intervals small spaces, with long, large spaces are more effective.] **V. A. C. Henmon** and **F. L. Wells.** 'Concerning Individual Differences in Reaction Times.' [Persistent differences in simple and compound times point to differences in interneuronal processes.]

American Journal of Psychology. Vol. xxv., No. 1. **E. C. Sanford.** 'Psychic Research in the Animal Field: *Der Kluge Hans* and the Elberfeld Horses.' [Historical outline of work done with the famous German horses. There is a close resemblance between these experiments and the human experiences dealt with by the S.P.R.] **E. O. Finkenbinder.** 'The Remembrance of Problems and of their Solution: A Study in Logical Memory.' [Analysis of the contents and processes involved in the solution and recall (three recalls, at intervals of a month or more) of 32 puzzle-problems. The dominant feature of recall is the visual image.] **A. T. Poffenberger.** 'The Effects of Strychnine on Mental and Motor Efficiency'. [Strychnine in moderate doses taken into the stomach produces no clear-cut change of efficiency in motor (tapping, three-hole, steadiness tests) or mental (discrimination, attention, association) ability.] **S. W. Fernberger.** 'A Simplification of the Practice of the Method of Constant Stimuli.'' [Extreme values of comparison-stimuli may be eliminated.] Book Reviews. Book Notes. Notes. Announcement. [Prize in Psychophysics.]

Archives de Psychologie. Tome xiii., No. 4. **C. G. Jung.** 'Contribution à l'étude des types psychologiques.' [Hysteria and dementia præcox may be characterised by the contrast of extraversion and introversion; and these different types reappear in other contexts (James's

doctrine of temperaments, Ostwald's classification of scientific genius, etc.).] **M. Dubuisson.** 'Les oscillations sensorielles et les variations de leur fréquence en fonction de l'intensité de l'excitant.' [The intensity of sensation (pain, smell, taste, warmth) is an oscillatory phenomenon, whose frequency is correlated with the intensity of stimulus.] **W. Mackenzie.** 'Le problème du chien pensant de Mannheim.' [Full account of the history and accomplishments of the 'thinking dog'.] **J. L. des Bancels** et **E. Claparède.** 'A propos du chien de Mannheim.' [Inconclusive personal experiences.] **P. Bovet.** 'Un rêve expliqué.' [Case of psychoanalysis.] Recueil de faits: Documents et discussions. **C. Werner.** 'VIII^e Réunion des philosophes de la suisse romande.' X. 'IX^e Conférence suisse pour l'éducation des enfants faibles d'esprit.' Bibliographie. Notes diverses. Tome xiv., No. 1. **G. Berguer.** 'Revue et bibliographie générales de psychologie religieuse.' [Outlines of the psychology of religion, normal and abnormal; brief review of theories of the nature and origin of religious phenomena; bibliography.] **A. Lemaitre.** 'Personnifications agissantes chez un garçon de 15 ans.' [Two cases, one highly dramatic, of the personification of numbers.] **E. Claparède.** 'Tests de développement et tests d'aptitudes.' [A test is a test of ability if it gauges a mental character which varies, on the average, more from individual to individual (of the same age) than from age to age. The critical variation must, perhaps, be conventionally established.] Bibliographie. Notes diverses.

JOURNAL OF PHILOSOPHY, PSYCHOLOGY AND SCIENTIFIC METHODS. x., 21 (not received). **A. O. Lovejoy.** 'The New Realism: Realism *versus* Epistemological Monism.' **W. H. Sheldon.** 'Professor Montague as "Neo-Realist" on Error.' **R. M. Yerkes.** 'Comparative Psychology: a Question of Definitions.' x., 22. **G. Santayana.** 'Dr. Fuller, Plotinus and the Nature of Evil.' [An interesting discourse on Dr. Fuller's *Problem of Evil in Plotinus*, which abounds in excellent phrases, such as, "Plotinus was a learned, respectable man, almost a professor," and "the evil that to religious sentiment seemed to offend God, according to religious theory really subserved his purposes: and having shifted their ground and contradicted their premisses, the theologians had the 'problem of evil' on their hands; and they still have it."] **F. J. E. Woodbridge.** 'The Belief in Sensations.' [An attack on "the very current belief that there are such things as 'sensations' which form a kind of elementary component, a stream of consciousness or of a mind," in the interests of realism.] **J. R. Angell.** 'Prof. Watson and the Image.' [*Cf.* x., 16. Imagery types are not fixed or simple, but it is premature to speak of 'dismissing the image from psychology'.] x., 23. **J. Royce.** 'An Extension of the Algebra of Logic.' [Boole's symbolism has hitherto been sterile because its fundamental operations have not been group-operations; now "a definite extension of the Boolean calculus" is promised and "a new introduction of group-theory into this realm of the algebra of logic".] **J. H. Leuba.** 'An Answer to Professors Shotwell and Hocking.' [*Apropos* of his book on religious psychology. Points out that since theologians cannot get the God they want from the Absolute of metaphysics they must submit to a treatment of their data by psychology.] x., 24. **W. K. Wright.** 'The Genesis of the Categories.' [Traces the social evolution of the categories of space (from the tribal camp), causality, and truth, and argues that they are all functional devices for aiding human societies to gain control of situations, and that if this be 'subjectivism' it is at any rate social.] **W. B. Pitkin.** 'The Law of the Resting Point.' [Reply to Hollingworth in x., 19, bringing out the value of biological adaptation as explaining the facts.] x., 25. **H. B.**

Alexander. 'Nature and Human Nature.' [Approves of Bergson 'creative evolution'.] **J. E. Turner.** 'Dr. Strong on the Nature of Consciousness.' [Criticises him as not allowing us an immediate relation to reality.] **W. T. Bush.** 'Concepts and Existence.' ["The concept is always less than what is perceived. As a selected property existential specifications are irrelevant to it. If it happens to become an instrument useful in some particular class of operations, it will, as such, certainly be defined in terms of its implications, in terms of the *if-then* relation. . . . But rules for construction need not be identical with empirical descriptions of what is beheld after construction." The author should not talk of "blessed *νούμενα*" (*sic*).] x., 26. **D. C. Macintosh.** 'Is Realistic Epistemological Monism Inadmissible?' [Argues for an 'activistic realism or empiricism' which recognises alike *primary* qualities, which are discovered through sense-activity but not produced by it, *secondary* qualities, which are discovered in the object only because produced and put there by the subject of sense-activity, and *tertiary* qualities, which are placed in the object by the purposive activity of the subject, and so made by thought. Thus the concept of creative psychical activity is extended to sensation, though it remains 'practically certain' that we have immediate knowledge of independent reality in perception.] **H. R. Marshall.** 'Is Psychology evaporating?' [Criticises Woodbridge (in x., 22) and J. B. Watson (in x., 16) and protests against the 'barbarism' of 'behaviourist' psychology.] **E. P. Frost.** 'The Belief in Consciousness.' [Thinks the term 'consciousising process' is an improvement on 'consciousness'.]

British Journal of Psychology. Vol. vi., Part 1. **G. Dawes Hicks.** 'The Nature and Development of Attention.' [Discussion of two theories which regard attention respectively (1) as a kind of power of illumination, and (2) as itself a property of presentations themselves. Both views criticised for treating presentations as objects, and for not paying sufficient attention to early stages of mental development. Development of attention from rudimentary act of apprehension is discussed; even at such lowest stages discrimination and comparison are involved. The influence of feeling-tone in the selection of presentations is emphasised. Even in voluntary attention the mental activity involved is that involved in apprehension, in varying degrees, apparent effort being a concomitant and not a cause. It is held that the distinction between non-voluntary and voluntary attention is explicable when the development of mental life is taken into consideration.] **Henry J. Watt.** 'The Psychology of Visual Motion.' [Criticises Wohlgemuth's physiological theory of the after-effect of seen movement, as begging the question, and as inconsistent with the presumable parallelism of mind and body. There follow discussions of the correlation between the introspective features of the after-effect of seen movement and those of the previous objective movement, and of Wertheimer's criticisms of some psychological theories.] **Carveth Read.** 'The Comparative Method in Psychology.' [A discussion of the use of the comparative method in psychology and the allied sciences, emphasising its necessity for a complete human psychology.] **J. C. Flugel.** 'Some Observations on Local Fatigue in Illusions of Reversible Perspective.' [Such fatigue may be highly specific and independent of the amount of attention given to the figure. A subject may show greater fatigue with one aspect of the figure than with other; this aspect varies with the individual but remains constant with each individual.] **Shepherd Dawson.** 'Binocular and Uniocular Discrimination of Brightness.' [Difference between binocular and uniocular discrimination of brightness measured by (1)

frequency with which a grey ring was located with accuracy and certainty and (2) by reaction-time of discrimination. Superiority of binocular discrimination shown not to be attributable to practice or to summation of brightnesses of uniocular images. All subjects found that most pronounced difference between uniocular and binocular images was in *steadiness*. It is suggested that sensations due to each retina develop and fluctuate independently; hence overlapping gives greater completeness and steadiness of binocular image.] **Stanley Wyatt.** 'The Quantitative Investigation of Higher Mental Processes.' [Intercorrelational coefficients of fifteen mental tests admit of hierarchical arrangements and so support theory of a common factor involved in all tests. Of all the tests, Analogies and Completion tests gave the highest correlation with estimated intelligence. Tests closely related in content may give low coefficients of correlation with each other. In tests which give high correlation with intelligence children from the Manchester High School proved superior to children in Fielden Demonstration School.]

The International Journal of Ethics. Vol. xxiii., No. 4. **Sir William J. Collins.** 'The Place of Volition in Education.' [Advocates the training of the will, but suggests no methods.] **C. D. Broad.** 'Lord Hugh Cecil's "Conservatism".' [Criticises Lord Hugh Cecil's views on religion and politics, Church establishment, property and taxation, and foreign relations. Defends the distinction between incomes from land and earned incomes on the ground that "special taxation of the former tends to lessen the attractiveness of an economically worthless occupation without lessening the total production of wealth".] **A. O. Lovejoy.** 'The Practical Tendencies of Bergsonism, II.' [Bergson's doctrine of the creative character of evolution is akin to the philosophy of Syndicalism, as formulated by Sorel. His theory that consciousness is perfect memory involves the traditionalism emphasised by Le Roy.] **H. Bosanquet.** 'English Divorce Law and the Report of the Royal Commission.' [Criticises the proposals of the Majority Report for adding wilful desertion, cruelty, incurable insanity, imprisonment under commuted death sentence, as grounds of divorce.] **J. D. Stoops.** 'The Ethics of Industry.' [Deplores the separation of morality and industry.] Book Reviews. Books Received.—Vol. xxiv., No. 1, October, 1913. **G. F. Barbour.** 'Christian Ethics and the Ideal of Nationality.' [The principle of Nationality is on its defence against the advocates of universal brotherhood, cosmopolitanism and humanitarianism. But nationality, regarded from the religious, economic and historical standpoints, possesses many valuable elements, which neither universal brotherhood nor humanitarianism can supply. Cosmopolitanism involves three positive dangers, (*a*) increasing importance of financial nexus, (*b*) moral laxity, (*c*) general levelling down of life. Our ideal should be an internationalism which will preserve the valuable elements in nationality.] **H. S. Shelton.** 'The Hegelian Concept of the State and Modern Individualism.' [Criticises Hegelian political theories, especially as expressed by Bosanquet, and seeks to rehabilitate individualism.] **Horace M. Kallen.** 'Art, Philosophy, and Life.' **N. C. Mukerji.** 'Martineau on the Object and Mode of Moral Judgment.' [Defends Martineau against various criticisms, especially those of Sidgwick.] 'Proceedings of the Conference on Legal and Social Philosophy.' [Abstracts of papers read at New York, April, 1913.] Book Reviews. Books Received.—Vol. xxiv., No. 2, January, 1914. **G. C. Henderson.** 'Natural and Rational Selection.' [There are essential differences, based on the self-consciousness of man, between natural and rational selection. The former is blind and mechanical, the latter open-eyed and intelligent; the former slow, the latter

rapid ; the former murderous, the latter humane ; the former may not involve the transmission of acquired characters, the latter certainly does.] **J. W. Scott.** 'Ethical Pessimism in Bergson.' [The central idea of Bergson's Essay on Laughter is that the comical is the 'unadaptable,' and the 'unadaptable' is the rigid. Society uses laughter to eliminate the unfit. Bergson's description of the comical bears a general affinity to the moral as we know it. Bergson thus implies that the ideal of Society is the final sacrifice of many of the moral aspects of life.] **S. Radhakrishnan.** 'The Ethics of the Vedanta.' [The Ethics of the Vedanta is dependent on its Metaphysics. It involves asceticism, but not quietism. The doctrine of Karma does not destroy human freedom.] **R. D. O'Leary.** 'Swift and Whitman as Exponents of Human Nature.' [Both emphasise the animality of man, Swift nastily, Whitman nicely.] **Wilson D. Wallis.** 'The Problem of Personality.' ["Personality is the successful correlation of one's individual programme with the programme of the group."] Book Reviews. Books received.

Revue de Philosophie. 1er Mars, 1914. **P. Duhen.** 'Time and Motion According to the Schoolmen.' [Buridan and Albert of Saxony on Motion, Duns Scotus on Time.] **S. Belmond.** 'The Ideology of St. Thomas and Duns Scotus compared.' [Scotus rejects the Thomist distinction between the Soul and its faculties, also the Thomist 'active, or abstractive, intellect'.] **A. Veronnet.** 'Cosmogonic Hypotheses.' [History of the measurement of the earth. How the Roman Empire checked Physical Science. The mechanics of Newton were anticipated by three Paris Doctors, Buridan, Albert of Saxony, Nicholas Oresme (1340-1380) : Their discoveries lost to Science owing to lack of printing, the decay of the University of Paris, finally the Renaissance.] **L. de Contenson.** 'Kantian innate judgments in their bearing on the foundations of Mathematics.' [Theory of the transformations of groups.] 1er Avril, 1914. **P. Charles.** 'La métaphysique du Kantisme, IV. Le noumène.' [Evolution of the Kantian concept of noumenon, starting with the noumenon as understood by Leibnitz. The distinction between the negative and positive noumenon explained, and a mistranslation by Trenesaygues and Pacaud corrected.] **P. Duhen.** 'Le temps et le mouvement selon les Scolastiques (cinquième article).' [Exposition of the theories of Petrus Aureolus and William of Occam as to the nature of time.] **P. Florian.** 'De Bacon à Newton, II. La méthode scientifique de la Société royale de Londres. [Method followed by the Royal Society, *viz.*, Preparatory discussions, Experimentation, Formation of hypothesis, Their verification. Improvements on Bacon's scientific method made by members of the Society—illustrated from a Treatise by Hooke.] **Ch. Boncaud.** 'Les initiatives de la procédure et la genère historique des droits.' [Positive law has generally developed by means of the decisions of courts of equity and by the ingenious application of existing legislation. Exemplified from Roman Law.] **Dr. Pascault.** 'L'homme : sa nature, sa loi, sa destinée, d'après Blanc de Saint Bonet.' [Analysis of de Saint Bonet's philosophical system, as represented chiefly by his last work *L'Amour et la Chute.*]

Zeitschrift fur Psychologie. Bd. lxv., Heft 4 u. 5. **W. Blumenfeld.** 'Untersuchungen über die scheinbare Grösse im Sehraume.' [Experiments with a modified form of Hillebrand's apparatus (avenue of flame-points). In the setting of parallel lines, attention goes mainly to the direction of the lines of depth ; the curves are either straight lines or lines slightly concave to the median plane and are anteriorly converg-

ent. In the setting of equal distances, attention is directed to the separate stimuli, whose lateral divergence is compared with that of the standard pair; the curves are convex to the median plane and as a rule are more widely separated anteriorly than in the alternative case. The author has recourse, for explanation, to central factors (the observer's attitude, distribution of attention) akin to those found by Benussi in his study of optical illusions.] Literaturbericht. Internationaler Kongress für Neurologie, Psychiatrie und Psychologie in Bern. V. Internationaler Kongress für Philosophie in London. Bd. lxv., Heft 6. **L. J. Martin.** 'Quantitative Untersuchungen über das Verhältnis anschaulicher und unanschaulicher Bewusstseinsinhalte.' [Experiments with simple visual figures, which are reproduced both by visual imagery and by any available mode of memory, show that remembering may be imageless. The image has a four-fold function: reproductive, reinforcing, as cue for attention, as guarantee of task performed. Imaginal contents are more suggestible than imageless contents.] Band lxvi., Heft. 1 u. 2. **A. Aall.** 'Ein neues Gedächtnisgesetz? Experimentelle Untersuchung über die Bedeutung der Reproduktionsperspektive.' [Experiments on school children (reproduction of heard narrative and of seen objects) seem on the whole to show that the working of memory is affected by temporal perspective; *i.e.*, that we lose quickly what we plan to remember for a short time, and hold longer what we plan to retain permanently. A psychological explanation is outlined.] **W. Koehler.** 'Ueber unbemerkte Empfindungen und Urteilstäuschungen.' [The fundamental dogma of sense-physiology, that sensation is correlated directly with stimulus, has led to the use of secondary hypotheses (unremarked sensations, illusions of judgment, even unremarked judgments) which cannot be observationally verified. We must give up the dogma itself, and admit the possibility (especially in the case of sense-complexes) that central factors are involved.] **W. Baade.** 'Ueber die Registrierung von Selbstbeobachtungen durch Diktierphonographen.' [Suggestions for use of the dictograph.] Literaturbericht. **G. Anschuetz.** 'Einige Bemerkungen zu meiner Kritik von O. Külpes Ausführungen "Psychologie und Medizin" und "Ueber die Bedeutung der modernen Denkpsychologie".' Bd. lxvi., Heft 3 u. 4. **P. Ranschburg.** 'Ueber die Wechselwirkungen gleichzeitiger Reize im Nervensystem und in der Seele; experimentelle und kritische Studien über ein qualitatives Grundgesetz des psychophysischen Organismus.' [Further experiments with homogeneous and heterogeneous letter-series confirm the author's law of sensory fusion (1902), according to which like sensory elements tend to combine (physiological inhibition), unlike to stand apart. Critique of Aall and Schulz; description of apparatus.] **P. Hoppeler.** 'Ueber den Stellungsfaktor der Sehrichtungen: eine experimentelle Studie.' [The range of deviation of judgments of the perpendicularity of an incident ray to the eye, with secondary criteria ruled out, is 7°, though one observer came within ± 1° of the 0-line; as a rule, the horizon is taken too low. Accuracy of function would have no value for visual localisation.] **H. Werner.** 'Ein Phänomen optischer Verschmelzung.' [In perfect fusions of plane congruent figures, the image is seen as more remote, and is apprehended as larger, the more closely the optical axes approach to the parallel position.] Literaturbericht. **W. Koehler.** 'Zu den Bemerkungen von G. Anschütz.'— Bd. lxvi., Heft 5 u. 6. **A. Gelb** und **H. C. Warren.** 'Bibliographie der deutschen und ausländischen Literatur des Jahres 1912 über Psychologie, ihre Hilfswissenschaften und Grenzgebiete.' [3229 titles, as against 3692 of the *Psychological Index*, and 3202 for 1911.] Bd. lxvii., Heft 1 u. 2. **F. Hillebrand.** 'Die Aussperrung der Psychologen.' [Critical summary

of the controversy regarding the occupation of philosophical chairs by experimental psychologists.] **P. Ranschburg.** 'Ueber die Wechselwirkungen gleichzeitiger Reize im Nervensystem und in der Seele; experimentelle und kritische Studien uber ein qualitatives Grundgesetz des psychophysischen Organismus, ii.' [Further experiments upon the tendency to fusion shown by homogeneous (in part, successively exposed) visual stimuli; similar results in the spheres of hearing and touch; the limen of apprehension as determined by homogeneity or heterogeneity of stimuli; the effect of attentive predisposition to the homogeneous. The author finds confirmation of his law throughout, and believes in particular that the increased clearness of the identical element depends on a summation, which itself implies an inhibition of the second identical at the expense of the first.] Besprechungen. [Fischer on Meumann's *Vorlesungen* and Stern's *Differentielle Psychologie*.] Literaturbericht. Der VI. Kongress für experimentelle Psychologie.—Bd. lxvii., Heft 3 u. 4. **G. E. Mueller.** 'Neue Versuche mit Rückle.' [Repetition and tachistoscopic extension of former experiments. Since Rückle became a professional calculator, his number-memory has bettered, but his memory for other things has rather fallen off. The writer hopes that Rückle's procedures may be exploited in the interest of practical mathematics.] **O. von Hazay.** 'Gegenstandstheoretische Betrachtungen über Wahrnehmung und ihr Verhältnis zu anderen Gegenständen der Psychologie.' [Perception differs from judgment, psychologically in immediacy and involuntariness, logically in the facts that it never denies an objective and affirms only positive objectives.] **S. Baley.** 'Ueber den Zusammenklang einer grösseren Zahl wenig verschiedener Töne.' [If a number of tones, differing by small equal amounts, are sounded together, the whole tends to a single resultant tone, whose pitch is (or lies near) that of the arithmetical mean of the primaries; in the middle part of the scale, 10 tones distributed over a musical semitone show the phenomenon.] **J. Pikler.** 'Empfindung und Vergleich, i.' [The judgment of comparison of two successive stimuli is simultaneous with the presentation of the second stimulus. The process of comparison must therefore be complete when this stimulus appears.] **E. Ackerknecht.** 'Ueber Umfang und Wert des Begriffes "Gestaltqualität".' [Spatial and temporal perceptions, in the first stages of their development (as figure and rhythm), are forms of combination; movement is doubtful.] Literaturbericht. Sammelreferat. **W. Moog.** 'Psychologie der Literatur.' Bd. lxvii., Heft 5 u. 6. **K. Koffka.** 'Beiträge zur Psychologie der Gestalt- und Bewegungserlebnisse: Einleitung.' [Programme of work suggested by Wertheimer's study of visual movement.] **F. Kenkel.** 'i. Untersuchungen über den Zusammenhang zwischen Erscheinungsgrösse und Erscheinungsbewegung bei einigen sogenannten optischen Täuschungen.' [Two successive stimuli, spatially congruent but possessed of different apparent magnitude (the Müller-Lyer figures were chiefly used), give an illusion of motion that is descriptively and functionally equivalent to that investigated by Wertheimer. Visual movement, that is to say, may be evoked not only by difference of retinal image but also by difference of 'complex'.] Literaturbericht. **W. Moede, M. Offner.** 'Berichtigung: Gegenerklärung.' **G. Anschuetz, W. Koehler.** 'Zusatz zu meinen Bemerkungen: Schlussbemerkung.' Bd. lxviii., Heft 1 u. 2. **L. Schlueter.** 'Experimentelle Beiträge zur Prüfung der Anschauungs- und der Uebersetzungsmethode bei der Einführung in einen fremdsprachlichen Wortschatz.' [The question whether it is better, in acquiring a foreign (nonsense) vocabulary, to work by a verbal method or by a method of presentation of objects does not admit of a single answer. For translation from the foreign language into the mother-tongue, the verbal

method is preferable; in finding the foreign term for an object or a familiar word, this advantage is lost.] **M. Meyer.** 'Vorschläge zur akustischen Terminologie.' [Auditory sensations may be defined by tonality, vocality, intensity.] **T. Ziehen.** 'Kurze Bemerkung über Reaktionsversuche bei Lappen und Samojeden.' [The three subjects, under brief test, fell easily into the technique of the experiment. In like cases, not only simple but also cognitive reactions should be taken.] Literaturbericht. Preisaufgabe. [Announcement of prize for an essay on the relations between the intellectual and moral development of the young.] Announcement. [Prize in psychophysics.]—Bd. lxviii., Heft. 3 u. 4. **R. Heine.** 'Ueber Wiedererkennen und rückwirkende Hemmung.' [There is no retroactive inhibition for simple or paired recognition, which accordingly does not depend on association. The influence of retroactive inhibition varies inversely with the strength of association. Series of syllables learned the last thing at night are better retained than series learned in the daytime.] **R. Mueller-Freienfels.** 'Zur Begriffsbestimmung und Analyse der Gefühle.' [Sensation and feeling have been differentiated from a common organic consciousness. Sensation is clearly marked off by objectivity; feeling, though an independent process, is a constituent of other formations (idea, concept, impulse, emotion), from which it is therefore hardly to be distinguished.] Literaturbericht.

Archiv f. d. gesamte Psychologie. Bd. xxviii., Heft 1 u. 2. **T. Erismann.** 'Untersuchung über das Substrat der Bewegungsempfindungen und die Abhängigkeit der subjektiven Bewegungsgrösse vom Zustand der Muskulatur.' [The substrate of our 'sensations of movement' is still unknown. Experiments with Störring's kinematometer indicate that it is to be sought in muscle and tendon rather than (with Goldscheider) in joint. A method is outlined for the study of the relation between attention and sensory intensity.] **H. Rose.** 'Der Einfluss der Unlustgefühle auf den motorischen Effekt der Willenshandlungen.' [Experiments with Störring's dynamograph show that, whatever be the mode of preparation for reaction and of reception of stimulus, sensory unpleasantness of all degrees (weak to strong) serves to enhance the motor effect.] **L. Truschel.** 'Experimentelle Untersuchungen über Kraftempfindungen bei Federspannung und Gewichtshebungen'. [Experiments with the dynamograph and with lifted weights show that our judgments of force exerted depend essentially, not (as has ordinarily been supposed) upon some secondary criterion, but upon the muscular sensations (*Kraftempfindungen*) directly given.] Kongress f. Aesthetik und allgemeine Kunstwissenschaft. Bd. xxviii., Heft 3 u. 4. **E. Rignano.** 'Was ist das Räsonnement?' [Reasoning is a series of thought-experiments; the thread is supplied by the primary affective tendency, which is exclusive, provocative and selective, *i.e.*, teleological; touch with reality (logical accuracy) is secured by the secondary affective tendency.] **O. von der Pfordten.** 'Beschreibende und erklärende Psychologie.' [Against Koffka and Messer. There is no need to relegate explanation to physiology or the unconscious; *auch Erlebtes kann wirken.* We 'have' acts; we are given (or we perceive) ideas; we experience feeling; all three belong to consciousness. The term 'act' may rightly be employed both descriptively and explanatorily.] **E. Rittershaus.** 'Zur Frage der Komplexforschung.' [In investigating complexes we have to do with symptoms (as in medicine) or with circumstantial evidence (as in law), and we must be content with approximate accuracy. Auditory presentation of stimuli is more natural than visual.] **W. Hasserodt.** 'Gesichtspunkte zu einer experimentellen Analyse geometrisch-optischer Täuschungen.' [Suggests a novel

principle of movement or arrest of the eyes (or of attention) to explain Poggendorff's illusion.] Literaturbericht. Sammelreferate. **R. Ambros.** 'Die Vererbung psychischer Eigenschaften.' **R. Pauli.** 'Die Untersuchungen M. von Freys über die Raumschwelle.' **W. Schirren.** 'Ueber das Orientierungsvermögen der allein wandernden Ameisen.' Einzelbesprechungen. Referate. Bd. xxix., Heft 1 u. 2. **G. Kafka.** 'Ueber Grundlagen und Ziele einer wissenschaftlichen Tierpsychologie.' [Although there are no objective criteria of consciousness, yet the problem of the phylogenetic origin and development of consciousness is real and important; and the inference from behaviour to consciousness, though it has its wide margin of possible error, is scientifically indispensable.] **O. Sterzinger.** 'Die Gründe des Gefallens und Missfallens am poetischen Bilde.' [The æsthetic value of a poetic figure depends on substitution or fusion, on pseudo-sensations, and on feelings (of force and of calm). Empathic phenomena occur but rarely; harmony is a complex experience derived in part from divergent sources.] **R. Pettow.** 'Zur Psychologie der Transvestie; zugleich ein Beitrag zur Reform des § 51 St. G. B.—ii.' [Record of cases, with proposals for reform of legal treatment. The phenomenon is probably atavistic.] **O. Kohnstamm.** 'Zwecktätigkeit und Ausdruckstätigkeit.' [Adaptation is a constitutive principle, an objective law of life. At the other pole, however, and with like biological sanction, stands a non-adaptive principle of expression, which sets bounds to utility, and legitimates the humanistic view of life. Art, morals, science and religion are wholly or in certain aspects non-adaptive.] **W. Kemp.** 'Methodisches und Experimentelles zur Lehre von der Tonverschmelzung.' [Experiments on dyads, triads, and dyads contained in triads, under the headings of pure fusion, sensory agreeableness, sensory interpenetration (*Zusammenwachsen*), sensory and harmonic coadaptation (*Zusammenpassen*). The paper (nearly 120 pages in length) is too detailed for summary; the results point to a modification of Stumpf's views.] **E. Waiblinger.** 'Zur psychologischen Begründung der Harmonielehre.' [Takes as text the statement that the constructive elements of modern European music are the fifth and the major third.] Literaturbericht. Einzelbesprechungen. Referate. Bd. xxix., Heft 3 u. 4. **F. M. Urban.** 'Der Einfluss der Uebung bei Gewichtsversuchen.' [Shows, *inter alia*, that the psychophysical methods afford a better basis than 'tests' of intellectual capacity for the study of mental correlation.] **A. Schlasinger.** 'Der Begriff des Ideals: Empirisch-psychologische Untersuchung des Idealerlebnisses, ii.' [Reaches a wider and a narrower definition of the ideal. In the narrower sense, the ideal is any object which is emotionally experienced in pure form as value with the tendency to its realisation, and also with the validity of durableness or with unusual emotional intensity.] **V. Benussi.** 'Kinematohaptische Erscheinungen: Vorläufige Mitteilung über Scheinbewegungsauffassung auf Grund haptischer Eindrücke.' [Brief account of illusions of haptical movement; description of apparatus.] **J. Wittmann.** 'Ueber die russenden Flammen und ihre Verwendung zu Vokal- und Sprachmelodie-Untersuchungen.' [Marbe's procedure may be developed into an exact method. The results, so far as vowels are concerned, support the views of Hermann and Jaensch.] Literaturbericht. **J. Lindworsky.** 'Neuere Arbeiten über die Methode der Selbstbeobachtung'; 'Die Unterdrückung infolge negativer Instruktion.' Referate. Zeitschriftenschau. Bd. xxx., Heft 1 u. 2. **E. Schroebler.** 'Die Entwicklung der Auffassungskategorien beim Schulkinde.' [Experiments on school-children from seven to fifteen years of age, by modified forms of the methods employed by the psychology of testimony. The child confronts his surroundings, at different ages, by

quite determinate categories: he uses first the category of substance, later those of action, quality and relation. His syntheses are for a long time partial or one-sided; when the urgency arises toward fuller synthesis, new categories (causality) appear.] **F. M. Urban.** 'Ueber einige Begriffe und Aufgaben der Psychophysik.' [Discussions of the problem and method of psychophysics, of the limen, of mental determination, grouped about the central idea that the sensory judgment falls under the mathematical theory of probabilities.] **W. Wirth.** 'Bemerkung zur vorstehenden Abhandlung.' [On the derivation of the limen.] **O. Kutzner.** 'Das Gefühl nach Wundt: Darstellung und kritische Würdigung.' [In the theory of feeling, the unity of consciousness has overcome the doctrine of elements. Wundt's psychology is throughout two-sided: over against the analysis into elements stand creative synthesis and a certain form of apperception.] **G. Anschuetz.** 'Theodor Lipps' neuere Urteilslehre: eine Darstellung, i.' [Exposition, without comment, of Lipps' doctrine; unfortunately no references are given.] **O. Pfister.** 'Eine Warnung vor irrtümlicher Beurteilung der Jugend-Psychoanalyse.' [Reply to the resolution of the Breslau Congress.] Bd. xxx., Heft 3 u. 4. **G. Anschuetz.** 'Theodor Lipps' neuere Urteilslehre: Eine Darstellung, ii.' **G. Frings.** 'Ueber den Einfluss der Komplexbildung auf die effektuelle und generative Hemmung.' [Raises the question whether effectual and generative (Ebbinghaus' reproductive and associative) inhibition occurs as between the elements of complexes or 'units of learning'. With normal complex-formation there is no evidence of it; if, however, the complex is but loosely held together, then repetition of the elements means inhibition, which appears indeed to be directly proportional to the looseness of the connexions.] Literaturbericht. **W. Leyhausen.** 'Ueber die aesthetische Bedeutung der von Rutz aufgestellten Theorie in Stimme und Sprache.' Einzelbesprechungen. [Rieffert on Jaensch, *Wahrnehmung des Raums*; Schmetz on the articles of von Wartensleben and Meyer on the reproduction of letters and figures; Seifert on Todoroff's *Text und Komposition*; Frings on Fernald, *Mental Imagery*.] Referate.

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PSYCHOLOGY AND PHILOSOPHY

I.—A DEFENCE OF IDEALISM.

By George Trumbull Ladd.

Among the various forms of difference and opposition in the methods and results of reflective thinking, which have been consecrated and emphasised by the names attributed to so-called "schools of philosophy," there is one of especially long-standing and of more than ordinarily fundamental character. This opposition reaches its extreme in those systems which are considered, on the one hand, to merit the title of an absolute or monistic Idealism and, on the other hand, of a mechanical and materialistic Realism. But it is in this very extreme that the opposition itself seems to suffer a kind of *reductio ad absurdum*. For the more complete and absolute the monism, the more thoroughly has the attempt been carried out to idealise the *real Universe*, or that totality of beings and events of which man has actual experience; and to which, whether it be physical or psychical, the positive sciences are compelled to give a quasi-mechanical exposition. The more self-sufficing and self-explanatory the mechanism itself is assumed or proved to be, the more completely is it endowed with the most distinctive characteristics of unchanging or temporarily regnant *human ideals*. Thus the God of monism may be as closely identified with the mechanism of the material universe as the reality dubbed Nature by scientific materialism is identified with the perfect ethical Spirit of monotheistic religion.

If we seek for the purest and most extravagant form of monistic idealism we must go to India. Only the One Ideal is truly real: all particular realities exist only as its ever-changing and rapidly fleeting ideas. To the inquirer after the true account of the concrete existences of which we

mortals have daily experience, the Ideal One replies: "Earth, air, fire, water, space, mind, understanding, and self-consciousness—so is my nature divided into eight parts. But learn now my higher nature, for this is only my lower one. . . . I am the creator and destroyer of all the world. Higher than I am is nothing. On me the universe is woven like pearls upon a thread. . . . I am the inexhaustible seed. I am immortality and death. . . . I am knowledge. There is no end of my divine manifestations."

As I have said elsewhere (*Knowledge, Life, and Reality*, p. 49): "This impassioned and mystical cry of an idealistic monism sounds to the Western ear like a demoniac call on reason to fling itself from the rock of reality into a bottomless abyss shrouded in impenetrable mist. And from it, or from any invitation resembling it, modern scientific realism turns away to accept the embraces of an all-creating and all-explaining Ether, or some other quasi-material principle. In its extreme form, however, almost every word just quoted as descriptive of the ancient Indian Idealism might be put into the mouth of the apostle of the modern Western Realism. We say 'in its extreme form'; that is, when this realism assumes to have discovered in Matter, or in Ether, or in a Being of the World which somehow mysteriously combines the qualities of both, an adequate explanation and a '*soul*-satisfying' interpretation of the totality of human experience."

In this connexion it is pertinent to call attention to the prevailing tendency to reduce the explanation of things, and of minds as dependently connected with things, to a system of mathematical abstractions which relate to the correlated forms of energy, of which the all-pervading ether is the vehicle, or substance, or ground. This is the celebrated dynamic theory of reality. But so far has this substance itself been idealised that it resembles a motionless and immovable vacuum regarded as a sort of theatre for a system of abstract formulas. And now, if we are going to get anything actually done, as in a real world upon this stage, we must still further idealise this mathematical and mechanical system; we must virtually convert it into a unity of active ideas or ideating wills. And then we seem, under the guidance of the latest realistic speculations, to have swung round the metaphysical circle so far that we can dimly descry through the mist the ghostly form of Père Malebranche's theory of "seeing all things in God".

All the way below these extremes, the attempt to draw fixed lines between the various schools of realism and the

equally varied schools of idealism is baffled by the recognition of the fact that their agreements are really more important than their differences. Indeed, much of the controversy between them may be reduced to logomachy, or else to a somewhat unproductive and misplaced emphasis on differences in the way of stating essentially the same truths Nor is the case conspicuously altered when we consider the opposition as one of points of view, of method, or of appeal to different kinds of human experience. As to the point of view, if we adopt that of the most naïve and crude realism, with its haste to solve the problems of science in terms of sense-perception, its trust of common sense, and its scorn of metaphysics, we discover that the moment such realism becomes controversial and puts itself into opposition to an equally naïve and crude idealism, it is obliged in some measure to come over to the latter's point of view. Otherwise the two forms of reflective thinking move along planes so far apart that either a clashing or a friendly meeting is impossible between them. For example, the most realistic theory of visual perception cannot oppose the most extreme form of subjective idealism, in its treatment of the same subject, without each consenting in some measure to take the other's point of view.

As to essential differences in method between these two schools, the very thing is made impossible by the nature of reflective thinking, the one organon of all systematic philosophy. For each of these schools of philosophy, and all philosophy, whatever the name of the school it may bear, is dependent upon the growing body of knowledge which we call the sciences, for the ascertainment, testing, and comparison of the facts that are the warp and woof of that pattern of Reality which appears in human experience. There is, however, only one way of converting these facts into the attempt at systematic philosophy. And this is the way of rationalism, the method of reflective thinking.

It is undoubtedly true that from time immemorial the different types or schools of philosophy have been accustomed to make their appeal, too exclusively, to some one of the many and indefinitely varied sides of experience, whether of the individual or of the race. To this fact we owe both the reproach and the pride of true philosophy. As its critics are fond of saying: It has never arrived at any general agreement in its conception of the Universe, or in the solution it has to offer of the major problems of ethics, æsthetics, or religion. And so far as this criticism is chargeable to the pretence, the jealousies, the unseemly wranglings of philosophers, it is

indeed a reproach to philosophy. But Reality, in the large, so to say, is too vast to be compassed by human thinking; and it is, in fact, rich enough in quality to satisfy all the demands made upon it from every quarter, and during all time, as an explanatory principle; while the pride of the life of philosophy and the indispensable condition of its progress are inseparately dependent upon the variety and the unceasing growth of the different types and schools of reflective thinking.

There never, therefore, has been a form of so-called realism which was not essentially idealistic in the character of its philosophical tenets. And no attempt at a system of idealism can be made which does not take its point of departure from that which is actual in human experience, that is, from the real as envisaged or implicated in every cognitive judgment; and which does not find itself compelled to return to reality over and over again, in its answers to objectors and in its efforts at self-vindication.

In illustration of the statement just made we may confidently appeal to the history of philosophy, especially in the more sober lines of its Western development. The water which Thales made the principle of a "creative evolution" was not mere water: it was the rather, as says Zeller, conceived of as "an efficient force," and "in the spirit of the old natural religion as analogous to living forces, as is seen in the assertion that all is full of gods, and that the magnet has a soul—*i.e.*, life—since it attracts iron". The air out of which Anaximenes would build the world, including human spirits, was not just such air as men around him were breathing every moment of their actual lives, not common air, such as is known to modern science as a combination of oxygen and nitrogen, sprinkled with various other physical ingredients and holding many noxious germs in suspension. By rarefaction this ideal air could become fire, and could even be transmuted into a sort of all-embracing world-soul. The realities which modern pragmatism and the "new realism" allow to exist in actuality and in a state of quasi-independence of ideas, are not mere things as immediate perception indubitably cognises them. On the contrary, they are to a high degree idealised—or, may we not say? in not a few instances, vaporised.

Most emphatically is all this true of the one all-embracing, all-creative Reality, the Being of the World, out of which the modern physical sciences would create, and by which they would explain, our actual experience with the concrete existences of minds and things. No construct of the imagin-

ation, demanded by art or by religion, is more purely ideal than is this Universe when regarded under the terms of modern mathematical and experimental physics. Monotheistic religion has never made more exhausting demands on our idealising faculties; nor has monistic philosophy ever asked the mind to group together in some kind of harmonious relations, to form its ideal of the Absolute, more conflicting, not to say contradictory forms of conception. Speaking truly, What more transcendent Ideal, both to inspire and to perplex the average mind, can possibly be proposed than that which is proposed by the latest and most highly developed scientific realism? God, or Ether, which is the easier to conceive of as the immanent Source of so-called "creative evolution"?

Let us now, however, address ourselves to the brief illustration of the other side of our two-sided contention. In the line of our Western standing, subjective idealism began with the Sophists, those ancient pragmatists, who so imperfectly comprehended the ground on which they thought they were so firmly planting themselves. Even in this early time, the wordy conflicts of philosophy, and the boldness with which the use of the rationalistic method had come to oppose all the most immediate testimony of common-sense as to the nature of things, had created a deep distrust of existing attempts to explain the physical universe. Objective knowledge by rational methods was declared to be impossible. Objectively true science was beyond the reach of human faculty, which cannot pass beyond subjective phenomena. What then remains for the wise man to do? To abjure metaphysics and to devote himself to that which is practical. But how shall one discover what *is* really practical? Why, by abjuring the claims of reason to pronounce upon the abstract principles, or metaphysics, of ethics, and by limiting inquiry to what "works" as a matter of fact in the conduct of the practical life. Thus we return to find in certain facts of human experience a foundation for a sort of philosophy. We flatter ourselves that we have passed over from the scepticism bred of rationalism to a tenable form of realism.

The classic type of idealism through all the history of Occidental philosophy has been, and still is, Platonism. Combined with any attempt at sobriety of thinking, idealism can no farther go. But after all, one of the most characteristic things, perhaps the most characteristic thing, about the Platonic idealism is its earnest, patient, and persistent attempt to place itself firmly upon a basis of admitted facts. It proposes to apply a species of the rationalistic method, the so-called dialectic, to the discovery and interpretation of the

realities disclosed in human experience. Only, the experience to be examined and interpreted is the experience of the Self in social relations with other selves. What is mere matter of fact is to be found in the imperfect and often false conceptions of men, as these conceptions lie asleep or are buried in consciousness, or as they are exemplified in the conduct of life. The truth about reality which these conceptions convey consists, however, in the ideals which the conceptions embody. And when these ideals are systematically arranged under the supreme Ideal of the Good, if the truth that ideals can have actuality only in personal consciousness is recognised more clearly than Plato ever recognised it, then Platonism is brought into essential agreement with the idealism of modern monistic philosophy and monotheistic religion.

It is in the *Timæus* chiefly that Plato allows his idealising genius to leave behind all solid ground of experience and run riot with wild dreams as do the brains of men when intoxicated by opium or nitrous oxide. But in Plato's time there was no real basis for speculations such as that to which the *Timæus* is devoted. Throughout the Dialogue the author has the air of one indulging in the pastime of imagination, without serious claim to depict events as they actually took place in a real space and in real time. With the belief that the principle which controlled the processes of creative evolution must be thought of as realising an ideal good in and through all these processes, Plato announces a conclusion from which modern idealism will, in general, not wish to dissent.

Nor was this typical form of extreme idealism unwilling to meet occasionally the ever-just demand of realism that there shall be a perpetual return to fact for the testing of all our ideals. Even in the sphere more completely under the control of human wills, Plato felt the need of proving his ideals by referring them back to the facts of actual experience. Thus Erdmann, in commenting on the difference between the *Republic* and the *Laws*, attributes it in part "to an increasing perception of the impossibility of attaining to the individual ideas in a purely dialectical way, and of descending from them to things. The desire of filling up the gap between the ideal and the real, which had induced him to obtain assistance from a science, mathematics, rooted only in *διάνοια*, causes him here also to lower his demands."

From Plotinus to Schelling, every form of absolute monism, in its deductive dealings with the most abstract conceptions as though they are the true and satisfactory explanatory principles of the vast multitude of individual things, must

make shift to place itself on a basis, however slender, of some experience of a realistic sort. Here the important thing is not that which this extreme form of idealism makes most prominent. It is not the occasional reality of states of intuition—intellectual, artistic, religious, etc.—from which these ideals are inductively derived. It is, rather, the ever-present, significant, intrusive and inescapable experience of the Self as a Will in relations of contact, agreement, or opposition, with other wills. For the most abstract ideas of philosophical monism, like those of the physical sciences, are not mere ideas. They are not barren ideals, but active, purposeful forces endowed with the reality of a will.

Since the progress of the positive sciences has made it more necessary that the different ventures in idealism as systematic philosophy should take their discoveries of what really exists and actually occurs into the account, the substitution of observation and experiment for deductive reasoning as a primary source of philosophy has gained in favour and in extent. Instead of a theology which derived its constitution from a mixture of Greek and Oriental speculations, with an appeal to the realities of religious experience by way of the intuitions of a specially privileged class, we have now a mysticism which relies for its claims to credence upon the more ordinary and constant experiences of all faithful Christian souls. Or if this idealism sets itself up as explanatory of Nature and able to interpret the causes and occurrences of the physical world, it can no longer face the positive sciences with a demand for unrestricted licence in the construction of its ideals. In his time, no one more than the dreamer Paracelsus insisted upon the principle of the interdependence of all particular things; and upon the necessity of carefully observing all natural phenomena, from the movements of the stars and constellations to the succession of crops. "Amid all the assertions which appear so fantastic, he is never tired of warning his readers against fantasies, and of demanding that Nature should be allowed to point out the way." At present, no class of thinkers is more deferential toward the modern chemico-physical sciences and toward positive studies in history, economics, social development, ethics, art and religion, than are the leaders of idealism as systematic philosophy. The narrowing of the field, the surface culture of it, "cock-sureness" as to the character of the soil, as to the values of different patent fertilisers, and as to the efficiency of different workmen, are not especially characteristic of any of the now active types of idealism. Indeed, some of them, at least, may lay just claim to superior

insight into how truth "works" for the conduct of the practical life, and into what is "really real," as distinguished from what is seemingly so.

These picked and fragmentary illustrations from the history of reflective thinking might be extended at indefinite length. But they are intended only as illustrations of a contention which can be established firmly on other grounds. This contention may now be stated in the following way: Realism and Idealism, as systems of philosophy, cannot properly be opposed as rival schools, entitled in a polemical manner to contend for adherents that are willing to be enrolled under either one of the two, to the exclusion of the positive tenets of the other. Or, as stated in different terms: All systematic philosophy is, essentially considered, some form of idealism. On the other hand, if it should wish to become, or to masquerade as being, a quite pure form of idealism, no system can escape the necessity of starting its process of philosophising from, and in the continuance of this process, of constantly returning to, the facts of experience as involving the cognition of concrete realities. For the supreme task of philosophy is so to shape and harmonise the ideals of humanity that they shall more perfectly correspond to, and more satisfactorily interpret, humanity's varied and unfolding experience of reality. Philosophy, essentially considered, is an ever-growing system of ideals; but of ideals verifiable by an ever-growing experience of reality.

Let the awkwardness and the temporary obscurity of the statements just made be pardoned while we examine the support they receive from an analysis of the processes involved in all reflective thinking.

Using the words in a broad and somewhat vague significance we may say that the sources of all our knowledge of what is real, lie in the concrete experiences of individual minds. There is no knowledge acquired except as some specific cognitive activity, taking place at a definite time and in some individual's consciousness. But every such cognitive activity is an experience involving reality. The act of knowledge is always some actual but fleeting state or change in consciousness; but it is always in and of some real being, mind or thing. It follows from this that we cannot understand—and *a fortiori*, cannot estimate—the claims, or the scientific value, or the practical influence, of either of these contrasted schools of reflective thinking, without understanding the sources in consciousness, and the conscious forms of functioning, out of which they perpetually spring. In other words, a psychological analysis of cognition is the indispens-

able propædeutic to an entrance even upon the threshold—and much more, to an avowed discipleship—of these, as of every other form of systematic philosophy. The fact that most advocates of modern realism have so little use for any attempt at a rational theory of knowledge is as suggestive as it is foreboding.

On entering upon an attempt at the required analysis, one of the most important preliminaries, as it seems to me, is to be on guard against the fallacies which lurk in the uses of that elusive and much-abused word "idea". This word is probably responsible for more fantastic psychology and more unsound philosophy than any other word in the English language. Nor can the careless use of the cognate or more strictly identical terms in every language into which man has set his efforts at philosophising, be excused wholly from the same fault. Much of his unsatisfactory doctrine of the "meaning of truth," and of the practical values and valid tests of truth, in the writings on these subjects of the late Prof. James, arose out of his habitual misuse of the word "idea". Ideas, whether we emphasise the part which imagination or the part which intellect has in their construction, whether we consider them as products of the representative faculty or of the logical faculty,—so-called images, recepts, or concepts,—*ideas*, as such, cannot properly be called either true or false. Ideas, as such, have the qualities of spontaneity, fixity, life-likeness, etc.; they may be associated and may be considered, for purposes of psychological theory, as furthering or hindering one another, after the fashion of the Herbartian school. But unless they are somehow or other caught and fixed in forms of cognitive judgment, we have no means of distinguishing the wildest and most grotesque fancies from the most sober realities, the smoke-dreams of idle hours from the inductions of the scientific laboratory or the reasoned conclusions of the philosopher. In insisting upon this we do no discredit to moral, artistic, or religious feeling; we put no contempt upon the instincts or insights of the most ignorant, or even upon the rambling and incoherent experiences of the infant or the idiot. Much less do we fail to prize highly those contributions to the knowledge of Reality which are constantly being made by the greater poets and artists. But *knowledge*—whether you call it sense-perception, just plain common-sense, or science, or philosophy—is born only when thinking has arrived at the pausing place of a judgment—a finished product of synthetic intellectual activity. And in saying this we return to the same conclusion at a point lower down, which was advo-

cated in a previous article (MIND, vol. xxii., N.S., No. 85) when rationalism was declared to be the only possible method of science and philosophy.

The same thing that has been said of ideas must be said of ideals, which are only a special class of ideas. Ideals, as facts of experience, as actual occurrences, have an undoubted existence. They *are*, as truly as are facts of perception or facts of memory. And in the history of human development, they have been very important and very influential facts. They have been most potent factors in stimulating and controlling every form of human activity, from the construction of the savage's canoe or rude piece of pottery to a symphony of Beethoven, a portrait of Rembrandt, the Inferno of Dante, or the teachings of Jesus. But as ideals, considered apart from the judgments which affirm or deny them of reality, they, too, are neither true nor false. Until the question has been raised, What does this particular form of idealism affirm to be existing in reality that corresponds to its particular ideal? the ideal itself has no meaning for truth. How, when, where, do you claim that your ideal has been, is now, or will be, realised? When the answer is given to these questions, then the truth of the answer as an interpretation of reality may perhaps be put to a decisive test.

As a matter of fact, realists and idealists, so-called, never argue about or criticise each other's views, as pure realists, or realists that have not already idealised the concretely actual, or as pure idealists, that is to say, idealists who claim no footing on the solid ground of an experience of the actual. The most radical realist will in general be found to be quite as much under the influence of unverifiable ideals as his sturdy opponent from the extremest school of idealism. On the other hand, the avowed idealist may have taken as much pains to keep close to reality in the forming of his ideals as has the scorner of all idealism in the name of the truth of reality. Indeed, the modern forms of realism, whether scientific and coldly intellectual or emotional and explosive, are pervaded by ideals which are unproved and, to say the best of them, questionable when brought to the test of human experience with concrete realities.

Neither science nor philosophy gets its knowledge of reality at first hand, so to say. Not a single, simplest conception limiting the classes of things, not a single so-called law describing their relations, changes, or modes of behaviour, has the authority of an immediate intuition in any human consciousness. What is true of things is true of souls. No classification or analysis of the mental operations or faculties,

no declaration as to the principles regulating or the causes producing any sort of psychical functioning, can claim any such authority. Still more incontestably true is this of all the larger conceptions of physical science, such as the conceptions of Law in general, of Unity, Order, Progress, Evolution, and the like. Of such *formulæ* touching all our experience with things, whether we consider them as wholly *a priori* or wholly *a posteriori*, or neither, or somewhat of both, the same statement must be made. Above all is this true of those lofty and comprehensive constructs of thought and imagination which are covered by such terms as Nature or the Universe, as these terms are customarily used by the modern sciences. These are all vast and vague ideals, formed in fitful and fragmentary way from an infinite number of contacts with, and impacts from, concrete and individual realities. Their increased authority for certitude, and extension in application, is as dependent upon the improved idealising capacity of the whole race of men as it is upon their ever-widening experience of the facts. Nothing would sooner or more completely kill all progress in both science and philosophy than to have the contentions of pragmatism and the new realism widely adopted and honestly applied. It is a comfort to know that there is not the slightest chance of this disaster to *ideals* being *realised*.

Nor is the case essentially different with the conceptions and laws of the psychological sciences. Whether we consider moral consciousness as chiefly feeling, or chiefly judgment, or, better, as involving both, sometimes in a harmony and sometimes in a diversity of mental attitudes toward a given piece of conduct, no science of ethics, or doctrine of what-ought or ought-not-to-be, in conduct or in character, can be shaped otherwise than in the form of ideals. The actual fact of feeling may be an inclination toward, or an aversion to, a slight or a more intense emotion of approbation or disapprobation; but in order to render the fact a contribution to ethical theory or a practical rule of conduct, it must be taken with other similar facts, and all viewed together in the light of moral ideals. Of all the conceptions and principles of art, the same thing is even more true. No construction that appeals to man's æsthetical consciousness can be explained or understood without more or less definite recognition of its controlling ideals.

But over all, as the supreme attempt of the intellect and imagination of humanity to interpret the total experience of the race with reality, stands the Ideal which monistic philosophy has called the Personal Absolute, the Infinite, or by

other similar terms; and which monistic religion has conceived of as perfect Ethical Spirit, or God. Instead, however, of this ideal being summarily rejected as a *mere* ideal, without foundation or verification in reality, it is entitled to the most respectful and serious consideration. It is, indeed, the highest, and intellectually most satisfying, and practically most valuable, of all human ideals. To substitute for it the incoherent conception of a "pluralistic universe" would be to take a long step backward on the road to intellectual barbarbism. But like all ideals, and on account of its very nature more than any other ideal, it is an ever changing, ever growing, ever more exalted ideal. It expresses, and it alone with the same adequacy expresses, the ceaseless effort of the spirit that is in man, to interpret the Universe as environing and including human life. It is, therefore, more than any other ideal required and obligated to find its fitness and guaranty in all the facts of every sort and every side of human experience. But this experience of fact has never as yet been, and never can be, completed and fully realised. Reality is no finished affair, to be experienced or theoretically reconstructed by any age, much less by any individual, "in the lump," as it were. The world of things and of happenings is in a process of evolution. The rather must we say that it is some of the items of this evolution,—and only a few of them, at most—of which the race has experience as matters of fact. On this factual basis rests the evolution of the ideals of the race. Fitfully, fragmentarily, often mistakenly, the succession of minds that reflect have built up a more and more verifiable and practically available system of ideals. To bring any one of these ideals, or any particular way of systematising them, perpetually back to the test of verifiable factual propositions is the constant obligation of both science and philosophy. In this way only can idealism verify its claim faithfully to interpret and not to misrepresent reality.

Systematic philosophy, which is always and essentially some form of idealism, thus stands dependently related to the realism of "factual experience". By the latter confessedly uncouth term we intend to designate all that knowledge which seems to have the quality of immediacy, accompanied by a conviction of the indubitable reality of the object. Something is known to *exist in fact*, or to have happened *actually*—so we are accustomed to say; and not as matter of memory or imagination. But since the fact of the existence of the knower—here and now, and as the subject of this particular experience—seems an essential

part of all such immediate knowledge; and since the fact of the existence of something else which cannot be confused with the knower is an equally essential part of all cognitive activity; psychology has been accustomed to distinguish two kinds of so-called immediate knowledge. These have been called sense-perception, or the immediate knowledge of things through the senses, and self-consciousness or the immediate knowledge of Self by a process sometimes called "reflection". These two forms of cognitive activity have therefore been assumed to exhaust all the possible sources of knowledge as to what really is and what actually happens.

If we indulge ourselves, however, in a not inappropriate figure of speech, we may say that there are two ways in which rational beings of the human type may know, and actually do know, reality. For reality is not only *envisaged* in some of our experiences, but is also *implicated* in all experience. This distinction, with the claim that accompanies and grows out of it, is much more fundamental than that which divides all cognitive activity into "knowledge of" and "knowledge about". For there is positively no knowledge-of which is not also knowledge-about; and knowledge-about adds ever increasing increments to our knowledge-of, even when the latter appears to be of the most immediate sort. Indeed, all these hard and fixed lines, marking off psychological distinctions and the philosophical opinions based upon the distinctions, fade away in the light of the principle of continuity as it rules the soul's development. It is manifest that they do not give a life-like and correct portrait of what the soul is in reality. For the Self, as known or knowable by science, whatever it may be in-itself, is, like every other really existing being, an ever shifting, ever unfolding net-work of changing relations to other realities. In the psychological development of the individual, and in the scientific and philosophical evolution of the race, much the same thing is true. For the infant there is no sense-perception and no self-consciousness, no knowledge either of or about, no reality consciously envisaged or implied. But as an essential feature of the evolution of mind, both in the individual and in the race, what is matter of implication to-day is matter of envisagement to-morrow. Knowledge-about is constantly becoming knowledge-of. The botanist cannot see the flower as Peter Bell saw it. The adult cannot picture himself (his *Self*) as he was, when as yet he had no true self. What is conjecture on the part of trained and prophetic minds, whether applied to the realities of nature, of duty, of art, or of religion, in

one age, becomes the most common-place knowledge in another age. And what was affirmed as indisputable scientific knowledge-about, or even knowledge-of, objects, classes, laws, etc., in one generation, may be rejected as an idle dream in another generation. There is, for example, no more exacting and carefully trained use of the faculty of sense-perception, as the source of an immediate knowledge of the constitution of physical objects, than that of the microscopist when dealing with the higher powers of the microscope. At the same time, there is no other use of the senses for purposes of accurate knowledge, where ideals are more essential and more influential in the discovery of truth of fact, or the detection of errors of interpretation, as to what really is, and what actually happens. Witness both the past and the present controversy over what Dr. Bastian *really* sees to be *actually* happening in the media which he claims to have sterilised thoroughly.

If, then, the vain effort could succeed in stripping science and philosophy of the particular ideals which they have incorporated into their various systems, there would be left in the form of verifiable knowledge—just nothing at all. Not a conception, or law, or principle of either, is given or can ever be given, as a sure matter of factual experience. Every conception, law, and principle of both is shot through and through with ideals that are more or less distinctly or remotely implicated in such experience. Or, the rather, must we not say, there is no purely "factual experience"?

From the point of view of the psychology of knowledge, therefore, we come to the conclusion which was suggested and illustrated by the history of philosophy: Systematic philosophy, as the construction of the human mind by the rationalistic method, is an attempt to harmonise and frame together those ideals which shall seem best to explain and interpret man's total experience with what he considers real and actual, in existence and in fact. *Philosophy is, therefore, of its very nature some form of idealism.* And the epistemological principle which guarantees in any respect the conclusions of both science and philosophy is essentially the same. It is this: The Universe itself, the real world, is in fact constituted, and all its behaviour actually takes place as, the progressive realisation of the Ideal. What the particular ideals are, and how they may be made to stand together in harmony under the supreme Ideal, for the satisfaction of human reason and for the control of human conduct,—this it is which constitutes the perpetual problem of reflective thinking.

If the views expressed in this and the preceding article (already referred to) are in any considerable measure correct certain conclusions follow, which seem to be of practical importance as touching the more recent culture of philosophical speculation.

To make any violent and indiscriminating attack on Idealism would appear to argue a lack of intelligent appreciation of the lessons of history and of the psychology of cognition, including those conditions of all human knowledge which apply to science and philosophy alike. The momentous systems of idealism that arose at once from the soil which Kant supposed himself to have left for ever barren by his critical scythe, have indeed ceased to bear fruit wholly satisfying either for appetite or for nourishment. The assumption that man may reach an appreciation, not to say a comprehension, of the true Being of the World, either by some convulsive clutch of intuition, intellectual or emotional, or by a steady climbing on the ladder of dialectics, has now been sufficiently discredited. But our ways of learning are not different, and the essential nature of what we learn has not changed. Rationalism still furnishes the only method; Idealism the only expression for the content of what is learned. So far as any form of empiricism—pragmatism, or what not—furnishes chastisement and corrective for the reflective exercise of reason, it may have a negative use. But the moment it attempts any positive contribution to our knowledge of reality, or any new view of the meaning of truth, it becomes itself a form of rationalism. Its polemical and emotional code of procedure does not tend to commend it to rational minds.

The greater and more comprehensive and enduring systems of philosophy have always been consciously and avowedly systems of idealism. They will always continue to beseech. This destiny is guaranteed by the very nature of those processes of the human mind which make possible all higher knowledge of Reality, whether we call it Science or Philosophy.

Pragmatism and the new realism may serve for a day or two to prune away some of the inconsistencies and exaggerations of the current forms of idealism. But when the time of its pruning and chastening is past—and it soon will be past—a new and improved idealism will come to the fore.

Meantime, and all the time, it appears to us, it should be to the credit of philosophy, by whatever name it announces or parades itself, not to be too "cock-sure" in opinion or too jaunty or polemical in demeanour. That its cause has been discredited of late, both in scholastic and in popular

circles, there can be little doubt. While part of this discredit is unjust and is due to the temper of the age—with its imperfect conception of life and of the so-called "practical" in life, and its unbalanced estimate of values; no small part is also due to the manners, method, and content of the thinking of those who are professional or casual students of, or writers on, philosophy.

If one compares the discussions of scientific conventions and journals with those of philosophical associations and reviews, one can scarcely fail to be impressed with the marked superiority of the former. Both the tenets and the style of the schools of speculative or applied science are more sober, reserved, and courteous toward criticism, than are the tenets and style of existing schools of speculative or practical philosophy. But why should this be, when philosophy, beyond all other pursuits of the human mind, is bound to the consistent and patient use of all the powers of human reason, and to the establishment in the confidence of humanity, and in the control of human conduct, of the highest and surest and realest of Ideals?

IV.—OBJECTIVES, TRUTH AND ERROR.[1]

By E. H. Strange.

It is a commonplace of philosophical discussion that the problem of error is singularly intractable. So Mr. Bradley says at the outset of his treatment of error in *Appearance and Reality*: "Error is without any question a dangerous subject, and the chief difficulty is as follows. We cannot, on the one hand, accept anything between non-existence and reality, while, on the other hand, error obstinately refuses to be either. It persistently attempts to maintain a third position, which appears nowhere to exist, and yet somehow is occupied. . . . And so error has no home, it has no place in existence; and yet, for all that, it exists. And for this reason it has occasioned much doubt and difficulty" (p. 186). On the other hand Mr. Russell makes it a reproach against most theories of the nature of truth that "they have tacitly assumed to begin with that all our beliefs are true, and have arrived at results incompatible with the existence of error. They have then had to add a postscript explaining that what we call error is really partial truth" (*Philosophical Essays*, p. 98). In Mr. Russell's view it is a merit of the pragmatists that they have tried to formulate a theory of the nature of truth with a due regard to fact that some beliefs are erroneous. In the essay "On the Nature of Truth" in his *Philosophical Essays*, and in the chapter "Truth and Falsehood" in his *Problems of Philosophy*, his last pronouncements on the subject, Mr. Russell has himself made an attempt to elaborate such a theory of judgment as will enable us to state wherein judgments which are true differ, as such, from those which are false. In this paper I propose, first, to examine a theory of the nature of judgment, that of Meinong, which seems to be peculiarly liable to the reproach that it is incompatible with the fact of error. And, second, I propose to consider Mr. Russell's own account of

[1] A paper read before the Philosophical Society of the University College, Cardiff, in December, 1913.

the nature of judgment. This procedure has the advantage not only of illustrating the charge which Mr. Russell makes against the majority of epistemologists in the case of a thinker with whom Mr. Russell is in general sympathy, but also of throwing light on Mr. Russell's own doctrine. Apparently, a theory of knowledge in many important points the same as that with which Meinong's name is associated was arrived at independently by Mr. G. E. Moore [1] and accepted, with some diffidence and with an acute awareness of the difficulties involved in all theories of knowledge hitherto suggested, by Mr. Russell.[2] But, it seems, it was especially the difficulties of this theory of knowledge, with regard to the nature of judgment and the nature of error, which have stimulated Mr. Russell to work out the account of judgment, truth and falsehood which we get in his *Philosophical Essays* and in *The Problems of Philosophy*.

Meinong is what is called a realist. He attacks with great vigour two errors ruinous to a sound logic and theory of knowledge. The first of these errors is psychologism, the failure to grasp the fact that over against all knowing stands something known, and therefore either the neglect of the latter side of the whole fact of knowledge or the attempt to describe it in terms of the psychical side. The second error, what Meinong calls "the prejudice in favour of the actual" (das Vorurteil zugunsten des Wirklichen), supports the first. The fact that all knowledge is my knowing something is so obvious, that it would scarcely escape notice, if all knowledge were of what is existent. But mathematics *e.g.* is clearly knowledge of what is not existent. So we tend to say that what is known in mathematics, since it does not exist outside of us, must exist "in our minds," "as thought," and must therefore be expressed in psychical terms.[3] Meinong insists, on the contrary, that everything psychical, with but very doubtful exceptions in the case of certain feelings and desires, is directed upon something, and without a reference to a something upon which it is directed a psychical fact is inexplicable. This being directed upon something (das auf etwas Gerichtetsein) can very well be regarded as a charac-

[1] MIND, N.S., No. 30, "The Nature of Judgment," where Mr. Moore maintains that "existence is itself a concept" and that "all that exists is thus composed of concepts necessarily related to one another in specific manners, and likewise to the concept of existence".

[2] MIND, N.S., Nos. 51, 52, 53, "Meinong's Theory of Complexes and Assumptions," especially pp. 204 and 523.

[3] "Über Gegenstandstheorie" in the Grazer *Untersuchungen zur Gegenstandstheorie und Psychologie*, pp. 23-24.

teristic moment of what is psychical as opposed to what is not psychical.[1] This is true of judgments and assumptions as of other psychical facts. Meinong distinguishes between that concerning which we judge and that which is judged by the act of judgment. It is difficult in English to mark the distinction, but in German it is easy by means of the phrases "das Beurteilte" or "der Gegenstand über den geurteilt wird," on the one hand, and "das Geurteilte" or "das Erurteilte," on the other. In English the distinction is perhaps more clearly recognised in the case of legal judgment. The judge and jury judge the prisoner, but their judgment is "that the prisoner did not commit this offence". So we can say that what is judged is, in one sense, the prisoner, and, in another sense, that the prisoner is not guilty. These two objects involved in judgment are respectively the Object and the Objective of the judgment; but the latter is the peculiar object of the judgment, and is what we ought to mean when we talk about the object of the judgment without qualification.[2] The distinction becomes particularly clear in the case of true negative existential judgments. Suppose I say "No disturbance of the peace has taken place," and suppose that statement is true. Now every true judgment gives us knowledge of something. But what is the something known in this judgment? It might be answered that what we are given knowledge of is disturbance of the peace. But can we say that the judgment gives us knowledge of disturbance of the peace, when the intention of the judgment is to deny that such an occurrence has taken place at all? That of which the judgment gives us knowledge is that no disturbance of the peace has taken place, an Objective. Clearly, also, Objectives are involved in all assumptions. An assumption must always be of the form "that X is so and so" or "that X is". X is the Object, and that X is so and so, or that X is, is the Objective, the object which is characteristic of the assumption, as opposed to the Object X, which is the characteristic object of the psychical process by means of which X is represented. It is, of course, his investigation of assumptions and the part which they play in thought generally that is Meinong's great contribution to the theory of knowledge. It will be enough

[1] "Über Gegenstandstheorie," in the Grazer *Untersuchungen zur Gegenstandstheorie und Psychologie*, pp. 1-2. See also *Über Annahmen*, second edition, p. 233 and following, where he says that in the account of intending (das Meinen) in the first edition he had himself been guilty of the prejudice in favour of the actual.

[2] Throughout this paper I translate *Gegenstand* by the term *object* and *Objekt* by the term *Object* with a capital letter.

to instance the way in which assumptions are involved in questions. Questions, Meinong points out, are of two kinds. First there are questions of the form, "Is X so and so?" in which I simply ask you to confirm or reject my suggestion as to the nature of X, *e.g.*, "Is the weather going to remain settled?" These Meinong calls "Bestätigungsfragen," or better "Entscheidungsfragen". Such questions can be correctly answered only by means of the words "Yes" or "No," and the questioner expects only confirmation or rejection of his suggestion. Then there are questions in which the questioner, beginning with some knowledge of X, asks as to the character of X in some respect, when X may well be determined in this respect in a way which has not occurred to the questioner (Ergänzungsfragen or Bestimmungsfragen). *E.g.* when a man asks: "To whom does the fishing in this lake belong?" he may be answered by being told it belongs to some one of whom he has never heard. Questions of the first kind clearly involve assumptions, whereas those of the second kind presuppose judgments. If I ask you: "Is the weather going to remain settled?" it is evident that what I want is to extend my knowledge, just as in the case of questions of the second kind. But it is equally evident that the extension of knowledge to be gained by questioning can consist, at most, merely in being able to believe, on the strength of my confidence in your judgment, where formerly I only assumed. When I ask: "Is the weather going to remain settled?" I must be prepared to learn either that the weather is going to remain settled or that it is not. I must, then, assume both these alternatives, and you can only confirm or reject an assumption I have previously made. The words "Yes" and "No" supply nothing new in the way of an object. I do not invite you to make a judgment about any object you please, or to make any judgment you please about the weather, but to tell me whether the weather is going to remain settled. So the words "whether the weather is going to remain settled" indicate an Objective; and it is worth noting that in German these words can very well stand alone, without being introduced by such a phrase as "I asked you," just as in Latin the *oratio obliqua* does not always follow a verb on which it is dependent. What happens, when I allow myself to be guided by your judgment about the weather, is that before I assumed an Objective which I now believe. The only difference is in my attitude towards the Objective.[1]

[1] *Über Annahmen*, pp. 120-125.

That is, very briefly, Meinong's doctrine of Objectives and judgment. And it follows from this doctrine that the distinction between true and false beliefs depends upon the distinction between valid and invalid Objectives. A belief is true when it is a belief in an Objective which is a fact, it is false when its Objective is not a fact. But the distinction between Objectives which are facts and those which are not facts does not seem to be further explicable. Some Objectives are indisputable, as that this room is brightly lighted, and that the angles of a triangle are equal to two right angles: others are clearly not facts, as that the sun is now shining, and that the angle in a semi-circle is one of a hundred degrees. And between these extremes we may get all degrees of probability. But there the matter seems to end. It is the case, Meinong says, that we do not naturally apply the terms "true" and "false" to Objectives. These terms are only applied to Objectives when we regard an Objective as the opinion or assertion of some person or other and criticise it as such. Common sense and philosophical tradition are agreed that what one asserts is true when it agrees with what is, or with what is fact. But this only means that we compare the Objective in question, as claiming to be valid, with the Objective as such, in order to determine whether the former is fact or not. "An Objective is most naturally said to be false so far as it is not true, and therefore, also, so far as it does not agree with an Objective which is a fact, or last so far as it is not a fact."[1] So, then, beyond Objectives it does not seem possible to go. But although certain Objectives are not fact, yet they and their Objects have being in some sense. This follows at once from Meinong's principle of "the being directed upon something" which is characteristic of the psychical. Moreover, we cannot make a distinction between true and false beliefs on this score, and say that true beliefs have Objectives, whereas erroneous beliefs have not, because in that case we could detect false beliefs at once by mere inspection, which is notoriously not possible. If there are Objectives for true beliefs, there must equally be Objectives for beliefs which are false. If a man believes that the philosopher's stone exists and that he has found it, his belief consists of judgments which have as Objects what he understands by the stone and his own researches, as Objectives the existence of the stone and that he has found it. A negative false judgment, also, has an Objective just as much as a false affirmative. So we may state the universal prin-

[1] *Über Annahmen*, pp. 94-95.

ciple that there can no more be a judgment without an Objective than a presentation (Vorstellung) without an Object.[1] In fact, as he points out later,[2] mere presentation (as in the case of the presentation of the letters of a book, or of the tones of a speaker's voice, when one is engrossed in the narrative; or again in the case of objects at the edge of the field of vision) is as completely passive a psychical fact as feeling, and apart from a judgment or an assumption can scarcely be said to have an Object at all. In the same way, contradictory objects are in some sense. Suppose I say "The round square is contradictory". That is a true statement, and there is an Objective which is a fact corresponding to that statement. But there must also be an Object corresponding to the words "the round square". This is that about which the judgment proceeds to judge, and therefore there must be such an Object, otherwise it cannot be judged. As Meinong puts it, "Any one who is fond of paradoxical modes of expression can therefore very well say: There are objects of which it is true to say that such objects are not".[3] According to Meinong, the propositions "The golden mountain is of gold" and "The round square is round" are true, although tautologous. The matter is clearly put by two very acute pupils of Meinong, Dr. Rudolf Ameseder and Dr. Ernst Mally, in the volume of *Untersuchungen zur Gegenstandstheorie und Psychologie*. In his essay, *Zur Gegenstandstheorie des Messens*, pp. 128-129, the latter says: "The being round of the square is, as an *impossible* being-so, to be sharply distinguished from the being round and square of the "round square". For the latter is indeed a *contradictory*, but *not an impossible* being-so. It is only impossible that a square should be round, whereas it is not impossible, but on the contrary *necessary*, that a round square should be round and square". A little later, page 133, he says: "Through the Objective 'A is' the object when determined by the judgment [der Eigenschaftsgegenstand] 'A, which is' or 'being A' is given. Although A (the object to be determined by the judgment) [der Bestimmungsgegenstand] as a matter of fact is *not*, nevertheless it remains tautologically certain, that the being of the object determined by the judgment, '*being A*,' *subsists*.—By means of a judgment: 'the being A is' there is judged just as little concerning the (actual) being or not-being of A (the object to be determined in the judgment) as by means of the hypothetical judgment: 'If A is, then

[1] *Über Annahmen*, pp. 45-46. [2] *Ibid.*, pp. 235 and following.
[3] *Über Gegenstandstheorie*, p. 9.

it is'." Similarly Dr. Rudolf Ameseder says in his essay, *Beiträge zur Grundlegung der Gegenstandstheorie*, page 88, that an object which is both different and not different from red is impossible. Nevertheless, it remains that such an object is both different and not different from red. Therefore it must be true that red is both different and not different from it, without being on that account an impossible object.

It is evident that Meinong's doctrine of Objectives leads very easily to paradox and absurdity. Meinong seeks to avoid the paradox of his position in two ways. In the first place, he distinguishes between existence and existential determinations (Existentialsbestimmungen, which are Soseinsbestimmungen not Daseinsbestimmungen). If a thing exists, then that thing has existential determinations also, *e.g.*, the determination of being the Object of a valid affirmation of existence. On the other hand, if a thing does not exist, it has not the determination of serving as the Object of a valid affirmative existential judgment. So it is not true to say that Kant's real hundred dollars have nothing that is lacking to the hundred dollars which are merely thought of. The judgment, "The existing golden mountain is existing," is as true as the judgment "The high mountain is high," but the judgment, "The existing golden mountain exists" is false. We must distinguish between saying "A exists" and "A is existing." between "being existing" and "existence". When I say a thing is existing, I am merely attributing to that thing an existential determination, *i.e.*, a predicate, and a predicate is never existence itself, as certainly as that to exist is not to be so and so, or being so and so is a thing which is so and so, *i.e.*, as certainly as that the Objective is not an Object (so gewiss das Dasein kein Sosein und auch das Sosein kein "So," d.h. das Objektiv kein Objekt ist).[1] This distinction, however, between existence and existential determinations, Meinong admits, does not go far towards solving the problem which was propounded centuries ago by the ontological argument.

Second, Meinong falls back upon a principle enunciated by his pupil Mally, the principle, namely, that character is independent of being, so that the fact that an object is not does not touch in the least its character. "What is in no wise external to the object, but rather constitutes its own nature, consists of its character, which remains to the object,

[1] *Über die Stellung der Gegenstandstheorie im System der Wissenschaften*, pp. 17-18; *Über Annahmen*, p. 141.

whether it is or not."[1] "This principle is valid not only of objects which as a matter of fact do not exist, but also of such as, being impossible, cannot exist."[2] Suppose I judge that a *perpetuum mobile* does not exist. It is clear that the object of which existence is denied must have properties and peculiar properties, otherwise my conviction of its non-existence could have neither sense nor justification. These properties, then, in no wise presuppose existence, for existence is just what is rightly denied. An object is apprehended by means of its character; but our apprehension must find something given it as an object, without in any way prejudging the question whether the object is or is not. The object is apprehended by means of an affirmative assumption, "for it lies in the nature of an assumption to be directed towards a being which does not need to be".[3] And in so far we may say that there is this object, since even to negate A I must first assume the being of A. This extraordinary meaning of the phrase "there is" (*es giebt*) is what Meinong calls "the being outside being of the object as such" (das Aussersein des reinen Gegenstandes). It is in this sense that the paradox is true that there are objects which are not. An object as such, he says, is the other side being and not-being (jenseits von Sein und Nichtsein).[4] So, then, besides existence and subsistence there may well be a third kind of being. But this third kind of being cannot have a not-being of the same kind opposite to it, because in that case we might inquire whether a given object was or was not in the sense of this third order of being. But in order to avoid prejudging this question, we should have to postulate a fourth kind of being, and so on for ever. This third kind of being, Meinong remarks,[5] is not a determination of being (Seinsbestimmung), but rather the lack of such a determination. It is on account of this doctrine of the "Aussersein des reinen Gegenstandes" that Meinong makes no exception to his principle that no judgment or assumption can lack an Object and an Objective. But such an exception is made by his pupil Dr. Ameseder. It is a fact, Dr. Ameseder says, that the round square is round, although the round square has no being as a matter of fact. On the other hand the Object of an affirmative existential Objective and of the corresponding negative Objective is not a fact. So it follows that by means of the phrase: "an object which is the Object both of a valid

[1] *Über Gegenstandstheorie*, p. 13. [2] *Ibid.*, p. 8.
[3] This point is stated at length in *Über Annahmen*, § 38.
[4] *Über Gegenstandstheorie*, p. 12. [5] *Über Annahmen*, p. 80.

positive and of a valid negative existential Objective," no object whatever is indicated, not even an impossible object, for impossible objects are necessarily the Objects of valid negative existential judgments.[1] Here at last we have touched bottom. It is admitted that a phrase may be significant and yet denote nothing whatever. This means that Meinong's principle of "das auf etwas Gerichtetsein" which is characteristic of the psychical, as Meinong understands this principle, breaks down. If the principle is true, there are objects which are so preposterous that even among impossible objects there is no place for them. In these circumstances one can only say with Lear: "O! that way madness lies; let me shun that; no more of that". We may well ask whether we should not do well to reconsider this principle. It is clear that judgment and assumption cannot be expressed in term of the mind, on the one hand, an object, on the other, and a relation in all cases the same between the mind and its object, although these terms may be sufficient to describe other psychical facts.

I propose to consider the account Mr. Russell has given of judgment, truth and error in his *Philosophical Essays* and in *The Problems of Philosophy*. The question is also dealt with in an article "On Denoting" and in his review of the *Untersuchungen zur Gegenstandstheorie und Psychologie* in MIND for 1905, in the paper "Knowledge by Acquaintance and Knowledge by Description" read before the Aristotelian Society in March, 1911, and in *Principia Mathematica*, volume i., Introduction, chapter iii. In *The Problems of Philosophy* Mr. Russell begins by laying down three conditions which a satisfactory theory of truth must fulfil. (1) Our theory of truth must be such as to admit of its opposite, falsehood or erroneous belief. "A good many philosophers," he says, "have failed adequately to satisfy this condition: they have constructed theories according to which all our thinking ought to have been true, and have then had the greatest difficulty in finding a place for falsehood." It seems difficult to see how Meinong can avoid this charge. If there always is an Object and an Objective whenever I make a judgment, why should I not claim that my judgment is true as indicating what is necessarily there?[2] Meinong's doctrine of the "Aussersein des

[1] *Beiträge zur Grundlegung der Gegenstandstheorie*, p. 86.

[2] This point is almost suggested in *Über Annahmen*, p. 242. If the problem of impossible objects is answered by saying that besides existence and subsistence there is a third order of being, which belongs to an object as such, then an object would be apprehended (*erfasst*) not by means of an assumption but by means of a judgment.

reinen Gegenstandes," it may be urged, simply postpones the difficulty. Even if we allow that impossible objects in some sense are, yet we are led to objects which are too preposterous even to be impossible. Moreover, I can assert that an object A is, not in the sense in which an object of thought must as such be, but in the ordinary sense of existence. So, then, I can use intelligibly the phrase "A which exists in the ordinary sense, but which is not in the sense in which an object of thought, as such, must be". But it does not follow that the object A does exist. Nor can we say that it has being in the sense of the "Aussersein des reinen Gegenstandes," for that is just what is denied. To accommodate it we should have to postulate a fourth order of being, consisting of objects impossible to the second power, so to speak, and so on for ever. Why, then, should we say that objects like the round square and the golden mountain are in any sense whatever, since such objects have obviously been arrived at in the same way as objects which are still more preposterous? In that our theory of belief must take account of erroneous beliefs, Mr. Russell continues, it must differ from our theory of knowledge by acquaintance, since the latter admits of no opposite. It is possible to misinterpret what is given immediately, but acquaintance itself cannot be deceptive. Either I am acquainted with some fact or I am not. There is no erroneous acquaintance with things.

(2) It is clear that error is an affair of our beliefs and not of the facts. Apart from minds there are facts, but facts are neither true nor false. It is impossible to hold that when I am in error I am unfortunate enough to be directing my attention upon an object which is, in some sense, but is not existent nor subsistent. It is monstrous to suppose that we cannot discuss this present topic of impossible objects without being committed to the position that such objects are. But (3) although error is an affair of my belief, as opposed to the facts of the case, it is clear that a belief is true or false in virtue of something outside itself. Beliefs are true if justified by the facts of the case, and not on account of some intrinsic property they possess. In other words we must accept some form of the correspondence notion of truth. The great difficulty is to define the exact kind of correspondence which constitutes truth, and to discover exactly what it is which corresponds with the facts, when I believe truly.

The first of these conditions and the paradox of Meinong's position show clearly that we cannot regard belief as a rela-

tion of the mind to a single complex object. To do so leads at once, in the case of false beliefs, to false Objectives or objective falsities, and to objects which are and yet are not. If Othello believes falsely that Desdemona loves Cassio, we cannot say that his belief is related to a single complex object, Desdemona's love of Cassio; because if that were the case his belief would not be false, for to call his belief false means that there is no such object. And to say that Othello's belief consists in his relation to the Objective "that Desdemona loves Cassio" seems to involve difficulties almost as great. But we cannot reject single complex objects in the case of false beliefs and keep them for true beliefs, because that would be to make an intrinsic distinction between beliefs which are true and those which are false, and enable us to discover which are true and which false by mere inspection. So we must say that no judgment consists in a relation of the mind to one single object. The relation of believing is a multiple relation, *i.e.* one which involves more than two terms. When Othello believes that Desdemona loves Cassio, there are four terms, or constituents, involved, namely Othello, on the one hand, the subject, and on the other Desdemona, loving and Cassio, the objects of the judgment. This does not mean that Othello has one relation to Desdemona, and the same relation to loving, and again to Cassio. It is true that Othello must have a relation to each of these: he must be aware of these objects in order to make the judgment at all. But this is not the essence of his judgment. The relation of believing is not one which Othello has to each of the three objects concerned, for then we should have three instances of a dual relation, not one instance of a multiple relation. The relation of believing is one which Othello has to the three objects, Desdemona, loving, and Cassio, all together. Othello's belief knits together into one complex all four terms. In this respect judging is like every other relation. Believing is the uniting relation. Now the relation of judging has a "sense" or "direction". In virtue of this sense, it arranges in a certain order, to speak metaphorically, the objects of the judgment, as indicated by the order of words in a sentence or the inflections of an inflected language. One of the objects of our judgment, namely loving, is itself a relation, but this relation, as it occurs in the act of believing, is only an object like the other two: it is a brick in the structure and not the cement. When the belief is true, there is another complex unity, made up of the objects of the belief in the same order as in the belief, in which unity the relation of loving, which

was one of the objects of Othello's belief, relates the other two objects, namely Desdemona and Cassio. But if the judgment is false, there is no such complex factual unity composed only of the objects of the belief.

It is interesting to note the difference between this account of judgment and that given in *Philosophical Essays*. In the latter there is no mention of the sense of the relation of judging. The only sense or direction mentioned is that of the object-relation. Suppose I judge that A loves B. Mr. Russell insists that the mere fact that I make this judgment does not involve any relation between the objects A and love and B, otherwise we have excluded the possibility of false judgments. "But," he says, "the judgment [that A loves B] is not the same as the judgment 'B loves A'; thus the relation must not be abstractly before the mind, but must be before it as proceeding from A to B rather than from B to A" (p. 183). The same point had been made in *The Principles of Mathematics*. If you analyse the object-constituents of the judgment "A loves B" into A and the abstract relation of loving and B, you have destroyed the unity of the judgment: you have reduced the judgment to the apprehension of a mere string of objects in succession. If I say "Desdemona," then again "Loving," and again "Cassio," and you understand my words, you apprehend in turn the objects Desdemona, the abstract relation loving, and Cassio. But you do not judge that Desdemona loves Cassio or even assume it, unless you do so in spite of the way in which the words are uttered. "A proposition, in fact," Mr. Russell says, "is essentially a unity, and when analysis has destroyed the unity, no enumeration of constituents will restore the proposition" (p. 50). So, then, we must say that when I judge that A loves B, I must apprehend the relation of loving as having a sense, *i.e.* as proceeding from A to B. But are we not now back again in Meinong's position: have we not now a single complex object for all judgments, true or false? Does not the fact of false judgments compel us to say that the object-relation is an abstract relation? It is, it seems, on this account that Mr. Russell is careful in *The Problems of Philosophy* to say nothing about the sense of the object-relation, but to make the judging relation the uniting relation, and to say that the object-relation is "a brick in the structure, not the cement".

What one feels on reading this account of judgment is that it is clearly an account of something else. To use a

simile of Mr. Russell's, it is as if one were told that a horse is a pachydermous animal with tusks and a trunk. The description seems so obviously not to meet the case. And this is suggested by the admission that to talk about the relation of judging "arranging" the objects of the judgment in a certain order is to make use of a metaphor. Suppose I judge truly that my ink-pot is to the right of me. According to Mr. Russell it is the relation of judging, which, in virtue of its sense, arranges the objects of my judgment, namely the ink-pot, the relation of rightness and my body, in the order characterised by the order of words in the sentence "The ink-pot is to the right of me". But, one feels, the ink-pot is where it is and I am where I am and the relations between us are just what they are independent of the act of judgment. The judgment is true just because it announces such independent fact. There is nowhere, call it "in the belief" or what you please, where the ink-pot and myself are arranged in an order different from the actual order in which we are, any more than there are objects which are and yet are not, otherwise we have thrown over Meinong for nothing. The order between the objects of my judgment is entirely their own affair, and owes nothing to the sense of the relation of judging. Of course, I have taken a judgment which happens to be true, but why should I not? A sound theory of judgment must take due notice of the fact that some judgments are false, but it must not accommodate itself to false judgments in such a way as not to do justice to judgments which are true; and it is just the point of true judgments that they do nothing to the facts, but assert what is independent of themselves.

This argument is, I believe, sound. But it is, I have been convinced, no refutation of Mr. Russell's theory of judgment. It is simply a denial of his main point that judging is a multiple relation. It means that the relation of believing is everywhere a dual relation, proceeding from the subject to a single complex object, and we must find some other way of providing for the possibility of error. At the same time there are certain difficulties involved in Mr. Russell's position. He appeals to a difference of sense of the uniting relation of judging to account for the difference of order involved in the two judgments "A loves B" and "B loves A". But compare the two judgments "A loves B" and "B is to the right of A". To account for the difference between these two judgments a difference of sense of the same relation is not enough. There is a difference of kind in the relations involved in these two judgments; for the factual

complex with which the objects of the first judgment must agree, if the judgment is to be true, has a different kind of order from that in the facts which determine the truth of the second judgment. For every way in which the facts are ordered there must be a corresponding way in which the objects of the judgment are arranged. In the judgment "A is more beautiful than B, but not so good," we have two new kinds of order involved. We cannot explain these differences of order by appealing to the objects of the judgments, because even the object-relations are mere bricks in the structure and not the cement. The judging relation, as being the uniting relation, is the sole source of order in the belief. The relation of judging, then, is not only a multiple relation which may have any number of terms and senses, it may be any one of an indefinite number of multiple relations. This seems scarcely credible. Believing seems everywhere the same relation. Or if it were true that the term "believing" were one which covers an indefinite number of multiple relations, it seems difficult to see how one could be ignorant of that fact or deny it.

But this leads on to another difficulty. A belief is true, according to Mr. Russell, if there is a complex factual unity composed *exclusively* of the objects of the belief, in the same order as in the belief, with the object-relation now occurring as a uniting relation binding together the other objects. On the other hand a belief is false when there is no such complex unity composed *only* of the objects of the belief. That is to say, we have to compare with a factual complex the constituents of the belief, in the same order as in the belief, but minus one of their number, namely the subject-term, and therefore apart from the uniting relation, which alone binds together the constituents of the judgment. But if you have dropped out the subject in this way, what right have you to suppose that there is any order in the objects? If believing is a multiple relation, it is a multiple relation of a very special kind. Compare it with the multiple relation "between". Three terms are necessary for the relation "between". But if you drop one of the three terms necessary for the relation "between," you still have a relation between the other two. This is not the case with the relation of judging. In order to account for the possibility of erroneous beliefs we have to disregard the relations which do, as a matter of fact, subsist between the objects of the judgment. The uniting relation is that of believing, which knits together all the constituents of the judgment. But when now you have left out the subject of the judgment, you have destroyed the sole source of

unity in the judgment. It is useless to talk about the order of the objects "in the belief". That is simply out of deference to your previous assertion that believing was the uniting relation. You might as well talk about the order of A and B "in the relation of 'between'". The phrase has no meaning apart from the subject and the uniting relation of believing, any more than it is significant to talk of the relation of "between" when you have not three terms. On the other hand, if there is an order among the objects of the belief apart from the subject and the relation of believing, then judgment is, after all, a dual relation of the mind to a single ordered complex object, and we are in the old difficulty about erroneous judgments. We have here come upon what seems to be the characteristic weakness of any attempt to represent judgment as the arranging of its objects, namely that it tends to make judgment two things instead of one, and leads very easily to a vicious infinite. To account for the fact of error it is said that judging means the mind's arranging its objects. But, it is felt, belief is something different from the arrangement of objects. When I poke the fire I arrange certain objects in a certain order, but this is not judgment. So, then, one tends to say that not only are the objects arranged in an order, but the order is also asserted. If, to avoid this vicious infinite, you say that belief means simply the objects' coming into a relation with the subject, then you have to draw upon a different relation, namely that between the objects alone, in order to state wherein the truth of a judgment consists. In Mr. Russell's theory, for the purpose of providing for the possibility of error, judgment is a multiple relation which knits together subject and objects and which is the sole source of unity in the belief. But for the purpose of defining truth, the uniting relation of judging is so successful in binding together subject and objects into one complex, that it confers on the objects an order which they have apart from itself; so that judgment can be analysed into such an ordered complex of objects, on the one hand, related to the subject, on the other. It will not do, of course, to say that one can gather the required order among the objects by appealing to the order of words in the sentence in which the judgment is expressed, or the inflections of an inflected language. What one gathers from the sentence is the asserted order, and it is in our attempt to determine the nature of assertion that we have been led to seek for an order among the objects of the assertion. Unless I have failed entirely to grasp Mr. Russell's meaning and have misrepresented him in consequence, this

is a point which it is incumbent upon Mr. Russell to clear up. Believing seems to be so extraordinary a multiple relation that our knowledge of other multiple relations does not help in enabling us to understand it, and it seems scarcely worth while to call it a multiple relation at all.

The solution of the difficulties presented by the fact of erroneous beliefs and impossible objects seems to consist in regarding belief not as a relation of the mind to more than one object, but as involving over and above the facts of the case, which determine whether the judgment is true or not, and the act of judging, something which is not fact at all, nor a relation between facts, otherwise we seem to lack terms sufficient to describe the fact of judgment. We must, in short, fall back upon a doctrine of Objectives, but we must not let Objectives swallow up the facts, nor regard the relation of the mind to Objectives as the same as its relation to objects of presentation. The key to the whole problem is to be found in Mr. Russell's distinction between knowledge by acquaintance and description. Meinong's doctrine, one feels, suffers from the lack of an explicit statement of this distinction.[1]

That Objectives are necessary can be shown directly by considering what it is that is verified when a judgment is brought to the test of the facts. Suppose I say, "It is now raining," and you proceed to verify my assertion. Clearly what you verify is not my act of judging that it is now raining. You are not interested in ascertaining my state of mind, whether I do really believe that it is now raining or whether I am lying to disappoint your hopes of a fine evening. What is verified is something which is not psychical at all. Nor is what is verified the material facts of the case. It is by becoming immediately acquainted with the weather that you verify what it is that is verified. The facts of the case, the weather conditions, cannot be verified. A fact is a fact and can only be immediately presented and perceived. One is *acquainted* with facts. The term "fact" is, of course, ambiguous. A "fact" may mean a particular presented in immediate experience, something with which one is immediately acquainted. But we also say: "It is a fact that

[1] This distinction is, however, implied, *e.g.*, in his *Über die Erfahrungsgrundlagen unseres Wissens*, p. 82, where he is meeting the idealist argument that everything is necessarily related to mind because I cannot think of anything unthought of, for whatever I think of is, *ipso facto*, something thought of. Meinong remarks that you might just as well tell a cautious steward, who was keeping a certain sum in reserve for unforeseen expenses, that that very fact proved that the expenses were not unforeseen.

it is raining". A "fact" in this sense means a valid Objective, what does correspond with the "facts" in the first sense. What is verified when my assertion is brought to the test of the "facts" is the Objective "that it is raining". If this Objective is found to agree with the "facts," it is said to be a "fact". An Objective, then, is neither the psychical fact, the act of assertion, nor the facts of the case, with which, when it is true, it corresponds. It is what is asserted in the act of asserting, not the act of asserting itself.

In immediate experience I am acquainted with complexes of facts. I perceive at once, *e.g.*, a patch of white on a larger patch of brown. Also I am immediately aware of the patch of white as existing, as being there. But the moment I proceed to describe, for the benefit of another, what it is I am immediately aware of, I make use of judgments, and judgments involve Objectives This is so even when I merely point with my finger: it means "There is that". And all understanding of the words I use means judging or, in case you do not believe at once, assuming. This is so whether the words uttered are whole sentences or not. If you say to me "London," I promptly make again some of the judgments in which my knowledge of the city which is called "London" consists. If you say to me, "The negro calumniator of the wizard of Hackney Moss," then, since I have never heard of these persons or of this place before, I assume that there was a man who was black and who calumniated a man who practised magic and lived at a place called "Hackney Moss". If you say to me "Between," then for a time I may be at a loss, but when I have collected my wits I may go on to judge, *e.g.*, that there is the relation of between, or that between is a multiple relation. In another context I might think that your utterance referred to some present object, and judge that A is between B and C. But until I have either judged or assumed I have not understood you, and am simply in a state of shock. The unit of thought is the Objective, and without Objectives there is no thought. Now since all words, when used intelligibly, express judgments or assumptions, it is evident that most judgments involve more than one assertion, although usually every assertion involved but one is taken for granted as common ground to both speaker and auditor. I can judge that an object given immediately in experience is X. Then I can go on to judge that this X, or this X thing, is Y also. Further, I can judge that this X, which is Y also, stands in the relation R to Z. In this way previous judgments are summed up and form the presupposition of further judg-

ments. But obviously one can challenge not only the assertion now being made for the first time, but also the assertions taken for granted. If I say "That horse is lame," it is quite relevant to retort, "It isn't a horse but a mare". The assertion "You will find the *Republic* on the top shelf with the other small books, next to my copy of *The Problems of Philosophy*," can be denied in many ways. One can say, *e.g.*, "It isn't your copy, but the one I lent you," or "There are no small books on the top shelf," and so on. In this way we can solve the difficulty of objects like the round square and the golden mountain. Thinking is not to be described as the contemplation of objects. It is possible to contemplate factual complexes given in immediate experience, abstract universals and visual and other images. But to contemplate any of these is not to judge, nor to assume. It is not the case, as Meinong asserts,[1] that we ourselves in this present discussion have been occupied with objects like the round square and the golden mountain. If that were the case, there would be no escape from the conclusion that there is a round square and a golden mountain. We have been occupied with the theory that there is something which is square and round, and something which is a mountain of gold. And being "occupied" with this theory means judging that some one who is called Meinong and who is possessed of extraordinary philosophical acuteness has put forward this theory. When I say that the round square is an impossible object, I do not first turn my attention upon the round square and then proceed to make a judgment about it. I do not do this because there is no round square upon which to turn my attention. I first assume a thing which is both round and square, and then go on to judge that such a thing is impossible. If the proposition: "The golden mountain is of gold" means that there is a golden mountain, and this mountain is of gold, it is false: if it means that a mountain which was of gold would be of gold, it is true. The whole of the present discussion has consisted of judgments and assumptions. Judgments and assumptions involve Objectives, and Objectives can only be analysed into Objectives. This does not mean that when I make a judgment or an assumption visual and other images do not occur to my mind. When I make a judgment about Table Mountain, *e.g.*, the image of a mountain with a flat top flits before my mind. This is what makes my judgment possible, because, as Mr. Russell has shown in his paper "Knowledge by Acquaintance and Knowledge by Descrip-

[1] *Über die Stellung der Gegenstandtheorie*, p. 18.

tion," "All names of places—London, England, Europe, the earth, the Solar System—similarly involve, when used, descriptions which start from some one or more particulars with which we are acquainted" (p. 116). In many cases the particular is merely the name of the place. But such visual images are external to my judgment about Table Mountain, just as my judgment that the paper on which I am writing is white is concerned with, but external to, the facts of which I am immediately aware.

The fact that all judgment involves Objectives which are of the facts does not mean, of course, that Objectives come in between me and the facts to make all judgment subjective. It is no more a reproach that Objectives are not the facts of the case than it is a reproach to the portrait painter that he deals in paint and canvas. That does not prevent his painting good likenesses. The objection clearly undermines itself, for if it were relevant then the objector, *qua* judging subject, is himself not doing justice to the facts of the case with regard to this present topic of the nature of judgment and Objectives. And if the question is raised: How can you distinguish between the Objective of your judgment and the thing about which the Objective is, in cases when you have never been immediately acquainted with the thing? the answer is simple. Suppose I judge that Table Mountain, on which I have never set eyes, is flat. Immediate acquaintance with the object which is called "Table Mountain" is only possible for those who happen to be within a few miles of that object. My distinguishing between the Objectives, in which I express my knowledge of Table Mountain, and the object called "Table Mountain" itself, means to judge that there is such a distinction, and not to contemplate Table Mountain itself at all. The Objective in which I assert this distinction, like all Objectives, is composed of nothing but Objectives. I can judge that there is a difference between the facts given to me now immediately in experience and the Objectives in which my knowledge of these facts is expressed. And on the testimony of others I have formed a series of judgments which I believe to be valid, *i.e.* to be justified by certain facts, in the same way as my judgments of perception are justified by the facts with which I am immediately acquainted. If it were the case that in all judgment an Object is presented, on which my attention is directed, it seems difficult to understand how there could be such differences of opinion as is actually the case on all subjects, not excluding this present topic of the nature of judgment, concerning which we could

raise a question at all. The worst that could happen would be that we might give the same name to different Objects; but even then such misunderstandings would be speedily detected, and we could scarcely avoid gaining the same general knowledge of our Objects. It is because all discussion consists of judgment and assumption, that there is room for difference of opinion greater than our differences of opinion as to the sensible qualities of objects.

It remains now to characterise the relation in which truth consists. A belief is true when its Objective is valid or is "a fact". When I say "My ink-pot is in the middle of the table," it is clear that neither the ink-pot nor the table is in the Objective that the ink-pot is in the middle of the table. The ink-pot and the table are in this room, this room is in this house, this house is in this street, and so on. The Objective is *of* these objects, it does not include them. This is a point Meinong makes, *Über Gegenstandstheorie*, page 12, where he rejects the argument that since everything, however impossible, can be the Object of a valid, *i.e.* a being Objective (we can say *e.g.* that the golden mountain is not), therefore any such Object can be said to be. This argument, says Meinong, supposes that the Objective is a complex of which the Object is a part. But this is merely an analogy which we must not press too far, since it breaks down in this present case of negative existential judgments.[1] An Objective is necessarily timeless, unchangeable and non-existent. Further, an Objective does not subsist. Difference subsists between A and B when A and B are different, but that A and B are different, or that difference subsists between A and B, does not subsist. But if there is a difference between A and B, then we can say that the relation of truth subsists between the Objective that A is different from B and the factual complex A being different from B. An Objective is to be called valid or invalid, *true* or *false*, "*a fact*" or *not* "*a fact*," but not *subsistent* or *non-subsistent*. The relation between Objectives and factual complexes which we call truth is ultimate and indefinable. It is possible to show in detail that an Objective is valid, in that an Objective can be resolved into a number of Objectives which correspond with the facts, just

[1] Compare, however, *Über Annahmen*, p. 47, where he says that Object and Objective do not make a duality, in the sense of standing independent and separate one from the other. The Objective is not something separate in addition to the Object, but the Object, in so far as it is apprehended by the judgment, stands in an Objective, of which it forms a kind of integrating constituent.

as a portrait can be shown in detail to be a good likeness. Further it is possible to talk Logic about Objectives, *e.g.* to make various distinctions with regard to their quantity and quality and so on, just as one can treat a portrait as a work of art and not merely as a good or bad likeness. But the way in which a valid Objective corresponds to the facts of which it is valid cannot be further resolved. Any attempt to resolve this relation seems to result in the disappearance either of the facts or of assertions. An Objective can make no difference to the facts, because it neither exists nor subsists. The act of judgment or assumption may make a difference to the facts. We have all heard of scientific instruments for recording changes in nature so delicate that one dare not approach, but must read these instruments with a pair of glasses from a distance, because one's presence makes a difference to the facts recorded. In this way the act of judging or assuming may well set up bodily changes which may, in turn, change the facts. But such changes could be calculated and allowed for, and are irrelevant to the question of the nature of truth.

In this account of judgment there are difficulties and problems enough. The adequate discussion of them would require a whole treatise. In particular, I conceive it to be a very interesting question, how we pass from one Objective to a second which contains but goes beyond the first. On the analysis of judgment into Object and Objective there is no special problem. Inference can be regarded as analogous to the process of plotting out figures on a background. But for a theory which rejects this analysis the question is difficult. To certain points involved I hope to return later

III.—INTERCOURSE AS THE BASIS OF THOUGHT.

By William Warrand Carlile.

In philosophical investigation the inquirer frequently finds that he gets a suggestive lead given to him if, in reflecting on some universally accepted fact or concept of practical life, he puts to himself the question, What are the postulates that lie behind it?

Let us ask ourselves accordingly, What are the postulates that lie behind the simple fact of measurement? Take an example; say that we have before us two similarly constructed steel bars that, perhaps, look to be about the same length, how will we decide whether they are so precisely or not? By putting them alongside one another and feeling their ends with the finger. Sense will tell us whether there is any protrusion of either bar at either end. The sensation of unevenness tells us that there is protrusion, of perfect evenness and smoothness that there is none. If there is none we call them precisely equal to each other. If one of them is a foot rule, then we say that the other is just a foot in length.

Sense thus undoubtedly furnishes us with the information which is the basis of the judgment of equality. But we know that with regard to sensations generally the one thing of which we can be certain is that they are never quite the same for one man as for another. How is it then that, in this case, sense can give us information that it is felt and universally acknowledged is identical for all men? That surely is a problem that invites further inquiry.

We may remark, in the first place, that it is clear at once that sense can only give us any information at all upon the subject when the sensation that we experience is experienced in answer to a question that we ourselves have put to Nature. The mere unasked, unsought sensation tells us nothing. Experiment, as Kant very justly says, is only fruitful when reason does not follow Nature in a passive spirit, but compels Nature to answer its own questions.

As regards our example, we must have put to Nature the question, Are or are not these two bars equal? before sense can tell us anything. But in order that it may be possible

for us to put such a question to Nature, it is evident that we must have the ideas of equality and inequality in our minds already, and a knowledge of the test to be applied to determine equality in special instances. Where do we get all this knowledge?

The Kantian would say that these ideas are of *a priori* origin, that is to say that they are, in some sense, implanted in our minds at birth. We must not, however, invoke a miracle when a natural explanation of things is possible. The natural explanation appears to be this: that these conceptions are learned from other human beings during the first years of life. We learn them, perhaps, almost or altogether unconsciously by object lessons, in learning the meanings of such words as quantity, measurement, equality, inequality and so on, and we have these conceptions ready so that we can subsume under them any salient facts that may emerge in the course of our experience. There is in this subsumption a process that seems to be closely analogous to developed scientific reasoning.

If, however, the ideas that enable us to put our questions to Nature are derived from intercourse with our fellows it is plain that, as a condition precedent to any precise knowledge of the external world, intercourse with our fellows is necessary. It is indeed, I think, necessary as an antecedent condition to any knowledge of the external world whatever. It is, at any rate, evident that the questions that we put to Nature must be in some way concerted questions, as the salient feature of the answers that we get is that they are truths valid for all. It is plain that we could not have the assurance that any truth was valid for us all until some method had been discovered which made the definite and precise comparison of knowledge between man and man possible.

The indispensable basis of this comparison is the certainty, somehow arrived at, that the material objects that any two of us are speaking of are the same things for one man as they are for another.

How this, the intersubjective identification of things, is possible, is a question that I endeavoured to deal with in a recent number of MIND.[1] Briefly, I think, the answer is this: I I can be sure that this spot (.), say, on the paper is the same thing for you as it is for me because I cannot put my finger on it while yours is there without displacing yours, nor can you put yours there while mine is there without displacing mine. This is ultimately the fact to which the notion of impenetrability corresponds. Sense again gives us this infor-

[1] October, 1912.

mation ; but again it can only give it when, in some sense, a definite and concerted question on the subject has been put to it by experimenting thought.

Truth is thus always the coincidence of two things, and this consideration puts in an unexpected light Berkeley's doctrine that *Esse* and *Percipi* are always and necessarily one and the same ; or, as Mr. Bradley expresses it, that " Being and Reality are one thing with sentience ".[1] Sensations, indeed, only necessarily coincide with truth, knowledge, or reality when they are sensations, that verify an anticipation. Sensations *per se* may perhaps be said, in a sense, always to have a reality of their own, but it can only be reality in some secondary sense. Plainly it cannot be the reality of which we intend to speak when we contrast reality with illusion. If it were so there could then be no illusions of sense. Sensations would be all equally realities. The fact of the preliminary anticipations thus, we find, enters into the constitution of every truth and every fact just as indispensably as does the sensation that verifies it.

The type instance of a truth is undoubtedly a statement made to us by some one of those about us as to some event about to happen, and which we find verified by the actual happening of that event. Truth is thus, beyond question, primarily a concept of intercourse. Subsequently we extend the conception to verified anticipations that have been raised not by information received from without but by inferences of our own from experience. The conception in its primary aspect is plainly one open to many intelligences to which in its secondary aspect it is altogether closed. This view of the question goes again to emphasise the fact that, to the formation of truth the preliminary assertion or inference is not less essential than is its subsequent fulfilment.

We are familiar with Kant's distinction between the presentation to sense that is merely felt and the presentation that is also thought. To be thought, in his view, is to be brought under one of his pure intuitions or under one of his *a priori* categories. Even if we cannot accept that view we may still recognise that the distinction corresponds to an important truth. We may co-ordinate it with Green's gleam of insight, that the feeling as soon as it is named is transformed into the thing felt. What Green is speaking of is the sensation caused by heat. Such sensations cannot obtain their names precisely in the same way that material objects can. In the case of the latter the conferment of the name can immediately follow on the intersubjective identifica-

[1] *Appearance and Reality*, p. 146.

tion of the object by touch or by indication, on the "showing" of it, as Locke expresses it. In the case of the former the naming registers the experience of perhaps innumerable sensations of a similar type, and is something that would not have been possible without that experience. Plainly in this case the thing named must be the thing thought. It must correspond to the sense datum not merely felt but brought under a general conception. The presence in the mind of the antecedent general conception we may look on as the anticipation; the emergence of the sensation and its falling under it as the verification.

The anticipation and the verification present themselves under a great variety of aspects. In logic we have them in the major and the minor premisses. Sir John Herschel says very justly of Mill's theory of the syllogism that "it is one of the greatest steps which have yet been made in the philosophy of logic". We are sometimes liable, indeed, to underrate its greatness. It was beyond question Mill's most important contribution to philosophy. All reasoning, he holds, is really reasoning from particulars to other particulars and thus the syllogism as commonly set forth in the handbooks of logic palpably involves a *petitio principii*. When we say

All men are mortal
Socrates is a man
therefore
Socrates is mortal

"the proposition Socrates is mortal is presupposed in the more general assumption, All men are mortal". This is unquestionably true. Yet for all that it is not to be denied that the syllogism expresses in a fashion the real movement of thought. Where the appearance of triviality and fallacy comes in is in the fact that the logician probably conceives of himself as seated in his arm-chair, in his study, engaged in the consideration of abstract propositions. Viewed from that standpoint the syllogism is indeed trivial and futile. The case is altered if we conceive of him as immersed in the activities of life, as engaged, say, in some forensic discussion, or in watching, in the laboratory, the processes of physical change. *The minor is always to be looked on as a fact that at the moment emerges*, the admission, it may be, of a hostile witness, or the colouring of the litmus paper disclosing the presence of some reagent. The logician, of course, could make no use of either fact if he had not, in his major, a general principle ready in his mind under which to class the one or the other. For the syllogism to have significance there must

be, to begin with, doubt as to the nature of the minor, a doubt which the emerging admission or the emerging fact settles. Even our old friend

All men are mortal
Socrates is a man
therefore
Socrates is mortal

can be viewed as having some significance if we suppose that Socrates, like Paul and Barnabas at Lystra, or like Captain Cook in the Southern Pacific, had been taken for a god. Some emerging fact, his own admission, it may be, or the drawing of his blood, betrays his humanity, and, to the observer who has the knowledge in his mind that all men are mortal, makes it certain, now for the first time, that he does not stand above the possibility of death.

Lotze raises for us the image of Thought, as in the Kantian view, "standing fronting the impressions as they arrive with a bundle of logical forms in its hand uncertain which form can be fitted to which impression". There is a truth that vaguely corresponds to this fantastic conception. It is this, that our innumerable general concepts stored in memory in the shape of the words and sentences of ordinary speech, may be said to stand fronting the impressions as they arrive ready to subsume them, to assimilate them, to convert them into thoughts. In Germany, since Herbart's time, a process of the sort has been spoken of as "apperception". The known, as Avenarius expresses it, is always apperceiving the unknown. The conception appears to have been suggested by physiology. As the organs and tissues of our bodies assimilate the substances of the outward world, and, as these substances, in their turn, once they are assimilated, become organs and tissues, and assimilate yet other substances, so our minds assimilate impressions which, in their turn, become parts of our minds and again assist in the assimilation of other impressions.

If we endeavour to conceive of the mere passage before our minds of the continuum of impressions without any antecedent general knowledge in the shape of inherited language ready to subsume and assimilate it, I think we shall be driven to the conclusion that consciousness, as we know it, would not, in such circumstances, emerge. It is quite possible to distinguish consciousness *plus* memory from consciousness without it. In the adjustment of our muscles that we make in walking, riding, or swimming there must be some momentary consciousness that accompanies the making of them. Time was, indeed, in riding and swimming at any rate, when the adjustments that we now make "unconsciously" as we

express it, were made quite consciously, in obedience, perhaps, to instructions. Long since, however, it has become habit with us to make them while our whole attention has been concentrated on some other matter. If a mental state, even the very next moment after its occurrence, leaves no trace in memory, it may be said in a sense indeed to have existed, but it does not exist for reflection. It is not objectified. In those circumstances, introspection can tell us nothing about it. Clear consciousness seems to accompany feeling and thought only when feeling and thought have been reduced to linguistic expression. It is only in making the facts about mental states communicable to others that we make them knowable to ourselves.

Developed knowledge thus in such a case, or indeed in any case, must be regarded as never being the work of the individual mind alone, but rather as always and necessarily consisting in the co-ordination of the results accomplished by the workings of the common mind through untold ages with the present impression on the individual mind. Such a mode of viewing the subject brings home to us vividly the conception of our participation in the operations of some wider mind than our own; and is calculated to arouse the reflection that our relation to that mind is closely analogous to the relation borne by the cells of our bodies to the organism as a whole.

What I am mainly concerned to emphasise at present, however, is the duality that is discernible whenever such thoughts as those of truth, knowledge and reality present themselves. In my recent paper I had occasion to refer to Dr. Ward's view that the one sun which is the common object of ten men looking at it, since it is not the peculiar object of any one of the ten comes to be considered as independent of them all collectively, and of consciousness generally, but that this conception of the independent existence of the external object is the "fallacy of naïve realism". The view runs closely parallel to that of a philosopher who is in many respects at the opposite pole of thought from Dr. Ward, Prof. Mach.

Prof. Külpe of Bonn, in his little book on *The Philosophy of the Present in Germany*,[1] cites Mach as the leading exponent of the new Positivism. "All science," he says, "according to Mach is a portrayal of facts in thought. By facts he (Mach) understands states of consciousness."[2] The Por-

[1] Translated from the fifth German edition by Maud Lyall Patrick and G. W. T. Patrick.

[2] Eng. tr., p. 36.

trayal theory is thus a valiant attempt to express and explain everything both in the inward and outward worlds in terms of these states of consciousness. That *Esse* and *Percipi* are one and the same is with Mach a doctrine that is worked for all that it is worth. He will have no *supplementing* of consciousness by thought.[1] "The task of philosophy," in his view, "consists wholly in the exposition of *these elements* (the states of consciousness) *and their mutual relations*".[2] The theory limits us "to the occasional sensations given in consciousness and their interconnexions".[3]

Some features of Prof. Külpe's criticism of this theory are of interest. In arguing that sensation alone cannot give us all that we call knowledge he remarks that "Without the guidance of thought and intelligent preparation every experiment would be meaningless".[4] Mere sensations *per se* "cannot be the vehicles of those changes in our experience which we know to be independent of us".[5]

If, with Dr. Ward, we reject the independent existence of the external object as "a fallacy of naïve realism," or, with Prof. Mach, as "a metaphysical speculation," we have then plainly to face the problem of accounting somehow for the fact that the information which it is possible for sense to give us can be, and very frequently is, of a character that absolutely compels concurrence in its validity on the part of innumerable individuals at once. Let us suppose that half a dozen of us look at the barometer, and that we all find that it reads at this moment 29·8, and let us then think away completely the existence of the external object. There is now nothing whatever there but the visual sensations which have formed the basis of the reading, nothing, that is to say, but these sensations and the amazing fact of their precise concurrence for each and all of us. How are we to account for that? If its familiarly accepted cause is once completely thought away we will surely feel ourselves driven to search for a substitute. Can any substitute suggest itself, unless indeed it may be Berkeley's theory of the continual activity of God in producing parallel illusions in all our minds at once, or else the existence of some primæval arrangement akin to the pre-established harmony of Leibnitz; and will any one seriously maintain in these days, that such hypotheses are in truth more acceptable than the popular view of the independent existence of the external object? When we inquire

[1] In this respect Mach appears to have modified his position in a recent work, *Erkentniss und Irrthum*.
[2] The italics are Prof. Külpe's.
[3] Eng. tr., p. 38.
[4] *Ibid.*, p. 43.
[5] *Ibid.*, p. 45.

into the grounds of universally accepted beliefs we seldom fail to find that naïve realism can give an excellent account of itself. There is some one who is abler than Napoleon, who is subtler than Talleyrand, it is *tout le monde*.

We find then that the undeniable fact of the compelled concurrence of innumerable individuals, of all mankind in fact, as regards certain of the information furnished by our senses seems to be the main ground of the unquestioning acceptance by common sense of the belief in the external world. The recognition of this concurrence again is of course possible only through intercourse, and we are thus led afresh to the conclusion that it is intercourse which ultimately furnishes us with this, the most elementary of all our knowledge.

How does it do it? The type of reasoning on which such knowledge is based appears to be the argument back from effect to cause. The compelled concurrence is the effect, and our minds, co-operating with other minds, may be said in a sense to set up the external world as the cause of this phenomenon. This procedure is, of course, further supported by the fact that the knowledge which compels concurrence is also that which is found to be valid as the basis of predictions of the future course of events. Taken altogether we have to ask ourselves the question; Is the procedure legitimate? For the average man we know, of course, that criticism endeavours in vain to invalidate it. Is, however, the average man's reasoning philosophically sustainable? The answer to that question has a bearing on issues that are of even greater interest to mankind than the question of the existence of the external world.

In getting the length of even asking this question we have, of course, left far behind us the doctrine of the identity of *Esse* and *Percipi*, of mere sentience on the one hand and of being and reality on the other. The answer to our question is bound up with the answer to this further question: Can the causal inference, apart from immediate sentience, ever give us the knowledge of unseen and of otherwise incognisable existence. In other words: If fire is found to have melted wax in our absence, are we justified, on that ground, in thinking of the fire and the wax as realities?

If causality consisted, as the Humist formula has it, in the invariable conjunction of two facts, and in that only, we should certainly be at a loss to apply it to the circumstances in hand. Two facts in such cases as the present are not given us, but one only. The famous formula, however, we soon find, will not fit the circumstances of any case.

[1] If the notion of Cause and Effect contained in the last analysis nothing else but the thought of invariable conjunction how could the fact of invariable conjunction be continually used to prove causality. We should then be using invariable conjunction merely to prove invariable conjunction. Again, the question must surely present itself: How is it that if the meaning of cause and effect is nothing but invariable conjunction, we can use the words "cause" and "effect" intelligently long before we know anything about invariable conjunctions. If a child is asked why he is crying and answers that it is because another child has struck him, can anything be more absurd than to imagine that what is running in his mind is anything about the invariable conjunction between blows and tears, a conjunction which, for that matter as invariable, does not exist. If, however, the Humist formula will not work, is it possible to find one that is more in harmony with the facts of life?

Let us suppose that the rotundity of the earth were still unknown, but that it had been observed by navigators that, in whatever part of the world they were, the masts and sails of an approaching vessel appeared first and the hull last, and that the converse happened when the vessel receded. We should then have a conjunction of the most rigid invariability, but still no causality disclosed. When, however, we subsequently discovered that the earth was a sphere we would feel that we now, for the first time, understood the reason of the observed uniformity, that we were at last in possession of the true cause. It must surely strike any one at a glance that there is here, between the subordinate law and the true cause the relation that there is between the glimpse of a part and the perception of the whole.

Have we then, we may ask, in the conception of whole and part and the relation between the two something that throws light on the nature of the relation between cause and effect?

We may look at the question in this way. If any one without a theory to support were asked what meaning he attached to the word "Cause" he would be very likely to answer 'that which does something'. There is a shade of difference in meaning, however, between 'doing' and 'causing' which is not to be neglected. The two words are naturally and continually applied to the self-same fact, but in different circumstances and from a different point of view. I move your ink bottle while you are out of the room. That, from

[1] The following seven paragraphs are in the main summarised from an article of my own on "The Humist Doctrine of Causation," in the *Philosophical Review* of March, 1896.

my point of view, is simply 'doing something'. You come back and find it moved. On inquiry you find that my moving it was the 'cause' of its change of place. The expression 'doing something' implies that the fact as a whole is regarded in itself, while the conception of 'cause' imports that there was a gap to be filled up; that your first knowledge of it was fragmentary, but that now you can fill up the missing links. We are thus brought back to the conception, that the knowledge of the fact and its cause together is the knowledge of it as a whole, while the knowledge of the effect alone is the knowledge of a fragment only. In physical science the presentation of the manifest fragment of a fact continually constitutes the impulse that sets the inquirer hunting for its complement. The irregularities in the motion of Uranus that led to the discovery of Neptune may, for example, be regarded as such a fragment.

The problem of causation is often stated somewhat in this way. "Granted that we always conclude that everything that begins to exist must have a cause, what makes us do so? Is the belief intuitive or is it a generalisation from experience?" It seems to me, however, that what is here taken for granted itself requires examination. In what sense is it true, or is it true at all, that we at once conclude that whatever begins to exist must have a cause? If by "we" is meant the whole human race, it certainly is not true. Children and uneducated people generally accept most of the facts of life and nature as they find them, and never think of inquiring as to their cause. Savages ordinarily regard such inquiries as why the sun rises and sets, or even whether it is the same sun that rises to-day as that which set yesterday, as entirely meaningless and nonsensical.[1]

Yet there are some events which raise the thought of causation as quickly and unfailingly in the mind of the savage as in the mind of the civilised man. A footprint on the sand would have made Friday, as certainly as Crusoe, conclude that it did not come there uncaused. If we inquire what such events are, as distinguished from other events, we will find that they are events which, by their very presentation, make manifest to him who observes them their fragmentary character. Any child will recognise that a face that looks at him over a wall, or a hand that is stretched from behind a screen, are not self-subsistent things, but parts of some wider unity. When he sees the body they belong to he is completely satisfied. He thinks he has the full cause before him.

[1] Lubbock, *Origin of Civilisation*, p. 251; also *Park's Travels*, vol. i., p. 265.

Besides the unity of the thing, and even in a manner before it, there is the primitive unity of the 'fact,' that is of the total presentation at any moment. Cæsar's assassination, for instance, is such a unity. The Senate House with the assembled Senate, the Dictator himself, the conspirators with their daggers, all for a moment form part of one whole; all when they separate still bear traces of having been fragments of it. To the widely pervasive fact that they do so, we owe it that it is often possible to trace out out causes from their effects alone. As in the broken solid the parts continue to fit each other, so in the broken fact we have a parallel phenomenon. The foot continues to fit the track that it has made, the finger the finger print. The wound, perhaps, still fits the instrument that caused it. In the case cited the fact was one witnessed by many persons, and capable of being reconstituted for others by their narration of its circumstances. In many other such cases, however, there is no witness of such a fact, and it often becomes our task to endeavour to reconstitute it, as best we can, from the fragments in our possession.

A very common example of reasoning of this description in practical life is furnished by what we call circumstantial evidence. It presents a familiar instance of the mode of procedure in thought from effect to cause, of the attempts that we are continually making at the reconstitution of wholes in past experience from the fragments furnished by present sense data. In a case that happened to come before me, with other Justices, at an inland town in New Zealand I well remember asking myself at the time under what description of logical form could the principal evidence be subsumed.

In the tenement of the accused who, as the result of the inquiry, was committed for trial for attempted arson, there was found a rag soaked in kerosene placed with other inflammable substances ready for lighting in such a situation that the building in which it was would have been set on fire. There was also found in the same room a torn night-shirt belonging to the accused; and, on examination, it was discovered that one edge of the soaked rag fitted with the utmost precision into the indentations of the torn edge of the night-shirt. The conclusion, backed by other evidence, was unavoidable as to the guilty intention of the accused. Mainly, at any rate, from this fragment of a fact thus given them the Bench of Justices sent the man up for trial. In doing so they were reconstituting a whole in experience of which the rag and the torn night-shirt were the remaining vestiges. Such reasoning, the reconstituting of wholes of experience from the fragments that remain to us, the setting up of unseen

causes from effects that are visible to sense is the very essence of the causal inference; and, if in setting up the independent external object as the cause of sensation we transcend sense, we only follow the same line of procedure that accompanies every hour of our practical activity.[1]

How closely the thought of the independent existence of the external world is bound up with the fact of intercourse is brought home to us when we reflect that the idealism which is paradoxical is always solipsist. Of Hume's current of more or less vivid impressions and ideas this is palpably enough true. It is no less true, however, of Kant's Copernican revolution. That the objects conform to the representations, not the represention to the objects, is quite unthinkable to any one who realises and remembers that the object, in as far, at any rate, as its position, its dimensions and its figure are concerned, can correspond to identical impressions in various minds. We can readily enough conceive of the one object as causing the various impressions, but how are we to think of successive impressions in Peter's mind and in Paul's as bringing into existence the one object which is identical for both. Suppose that Peter has seen or handled the object first, can Paul's impression then create it? Is it not by hypothesis there already? We need not ask the question. The realisation of the fact of Intercourse is the Ithuriel's spears that at once transforms such fancies into their natural absurdity.

[1] To suggest in any detail other applications of the argument from effect to cause thus used would be foreign to the object of this paper. My readers will no doubt have noted for themselves its bearing on the validity of the old-fashioned line of reasoning used by our forefathers to prove the activity of Mind throughout Nature, which Kant labels, in order to dismiss it, the "Physico-Theological argument".

IV.—THE HEGELIAN DIALECTIC.

By Bernard Muscio.

1. The argument of the Hegelian Dialectic may be stated in general terms as follows. If we attribute a predicate to some subject, we are compelled, as a result of a careful scrutiny into what we have done, to attribute to the same subject the logical contrary of that predicate. We are thus compelled to assert a contradiction. For, while two contrary propositions may both be false, they cannot both be true. The fact is, however, according to the dialectic, that there inevitably arise instances in which we are forced to believe both of two contrary propositions true. It is held that the most extreme scepticism cannot escape this result. Every sceptic can be forced to admit, by an argument similar to that of Descartes, that *something* exists. In admitting so much the contradiction is at once reached, for a predicate has been attributed to some subject. Because "Being" has been predicated, "Not-Being" must be predicated. The solution of this contradiction, according to the dialectic, is a synthesis in which the distinction between the contrary predicates, or "categories," is overcome. Each is seen to be a "moment" in a "higher" predicate. The predication of the synthesis, however, resuscitates the difficulty, since we are forced to predicate *its* contrary. A new synthesis is thus required. The disease breaking out once more, the process is continued until a predicate, "the Absolute Idea," is reached, which, when attributed to Reality, does not compel us to predicate its contrary. From the fact that "the Absolute Idea" can be predicated of Reality, it can be inferred, it is held, that the Universe is Spiritual. This conclusion concerning the Universe is, therefore, according to the dialectic, absolutely certain. Our certainty of its truth arises from the fact that we are compelled to predicate "the Absolute Idea" of Reality, if we predicate of it anything at all; and, no matter how great our scepticism, we must predicate "Being".

2. The unique characteristic of the dialectic is its synthesis of contraries in such a way as to resolve a contradiction.

Now it seems evident that this synthesis is possible only if there are contradictions to which the dialectic can be applied; that is, only if we are under the *necessity* of predicating logical contraries of the one subject. The contradictions must exist, and be recognised, before the characteristic principle of the dialectic can be adduced as their solution. Hegel, and his followers, definitely assert that they consider certain contradictions, arising, it is said, inevitably, as the *cause* of the dialectic process. It will therefore be admitted by the advocates of the dialectic that, if the specified contradictions do *not* occur, the dialectic process cannot begin. The disappearance of the dialectic will necessarily follow from the disappearance of the contradictions which it was designed to resolve.

3. The question to be considered, then, is: Are the contradictions which, it is held, *cause* the dialectic process, and thus lead to the knowledge that the Universe is Spiritual, inevitable? Two reasons *only* are urged for their necessity. (i.) It is held that the predication of one predicate of a subject "implies," or "involves," the predication of the logical contrary of that predicate, of that subject. In this case the contradictions are reached by means of the relation of "implication," or "being involved in". (ii.) It is held that the demands of the "Understanding" lead to contradictions if we apply to Reality any predicate except "the Absolute Idea". These two reasons are quite distinct, as will be clear as we proceed. The difference between them does not seem, as a rule, to have been recognised; and acceptance of the dialectic seems to have been due, in some instances, to a belief that they are identical. The fact is, however, that each attempts to prove, in a manner entirely different from that of the other, that there must arise contradictions which only the principle of the dialectic can solve. We shall consider both reasons in some detail.

4. (i) We have stated the first argument in the form that the predication of one predicate of a subject "implies," or "involves," the predication of the logical contrary of that predicate, of that subject. We wish to draw attention, first, to the phrase "predication of a predicate" in this statement.

In the writings of those who accept the dialectic the above phrase would, generally speaking, be considered equivalent to either of two others, which are in fact constantly used as synonymous with it. These are "predication of a *category*," and, "predication of an *idea*". The most usual way of stating the difficulty which, it is held, the principle of the dialectic removes, is to say that, if we predicate a *category* of

a subject, we are compelled, as a result of a close inspection of that *category*, to predicate the logically contrary *category* of that subject. According to this, the most usually accepted phraseology, "category" is synonymous with "predicate". But we frequently find in Hegelian literature the phrase "apprehend under some category," and here "category" does not appear to be synonymous with "predicate". What would be the meaning of apprehending something under a "predicate"? The question thus arises: What, in the Hegelian terminology, is a category?

5. This question is highly important. Strange to say, it seems never to have been asked. The meaning of "category" appears to have been supposed obvious, and it is perhaps due to this fact that the word has been used with incompatible meanings. It is of course clear for what *words* "category" is to stand. The various terms "Being," "Not-Being," "Becoming"; "Logic," "Nature," "Spirit"; etc.; are all "categories". But taking any one of these terms, say "Being," what does it denote?

Three different things must here be distinguished. There is the mere word, the name of the "category" to which reference is made; there is the entity itself, whatever it may be, which the word denotes; and there is the idea in the mind of the person who uses the word as a symbol, that is, the idea of the "category" of which the word is the name. The important question is: When a Hegelian speaks of a "category," what *kind* of entity does he use this word to denote?

It appears highly doubtful if Hegelians use the names of the "categories" in *any* precise sense. By this it is not meant that they sometimes, for instance, use "Being" to mean what "Being-Determinate" is used to mean elsewhere; but that the *kind of entity* which the name of a "category" denotes seems never to have been definitely decided upon. This is suggested, for example, by the fact that it is sometimes said that "Being is an idea," sometimes that "Being is predicated of something" (and we do not predicate *ideas* of anything), and sometimes that "we apprehend something under Being" (and we do not apprehend things *under* predicates).

6. There is a strong tendency among Hegelians to use a "category" in the Kantian sense, as, so to speak, a groove of the mind, a piece of mental architecture, in accord with the unyielding outlines of which, "objects" must accommodate themselves. The various types of judgment are then taken to be the expressions of the activity of the mind

through its structural constituents. The manifold of sense is put into "intelligible" order by the "categories". The chaos which sense (on this theory) would be in the absence of mind, is converted into a cosmos by the activity of the mind working through its "categories".

7. Though there is a strong tendency among Hegelians to use "category" in this sense, some other is absolutely necessary for the dialectic.

In the first place, it is doubtful whether the most convinced Hegelian would admit that there are special mental constructions corresponding to the several score of Hegelian "categories". Our minds are not built on this elaborate plan. To uphold the contrary position would be particularly difficult in view of various criticisms which have been urged against the "validity" of certain of Hegel's "categories" by those who accept the dialectic as a whole. Modern psychology would increase the difficulty. But even if we knew there were "categories" in this sense, and even if we knew,—as we do not know,—what were the relations between them, to argue from these to the nature of Reality would be, as the phrase is, a very crude piece of subjectivism. Are we to say that there is a reality corresponding to any curious kink our minds may happen to possess?

In the second place, the relation of "implication"—whatever it be,—which is the instrument by which, according to the argument we are considering, the contradictions are generated, cannot possibly hold between Kantianesque "categories". This relation is said to hold between certain entities, whose precise nature is not defined, which are *predicated*. It is evident that we cannot predicate Kantian "categories". Yet if the contradictions are to be obtained, logically contrary "categories" *must* be predicated. Consequently, "category" cannot be used in the Kantian sense.

8. A "category" as *used*, not as *defined*, by advocates of the dialectic, appears to be simply the defining function of a class. In most usual philosophical terminology, a Hegelian "category" is a *predicate*, simply, in the widest sense of this term. When, for example, it is said that "Being" is a "category," what is meant is that there is a class of entities, each of that has a certain relation to the *predicate* "Being". Again, the "category" of "Life" is that set of *predicates and relations*, in virtue of the possession of which, certain entities are members of the class "living beings". Similarly, the "category" of "Cause" will be that *relation* by which certain *events* are grouped together, as "instances of causation," in a certain class. And so on for the remaining "categories". If this be

the correct account of the matter, it will follow that there are as many "categories" as there are defining functions of classes, that is, an infinite number; and the dialectic will be a selection from all possible "categories". The "categories" which constitute the stages of the dialectic would be those which stand in such a relation to each other, as leads the advocates of the dialectic to believe that they can proceed, by means of them, to the conclusion that the Universe is Spiritual.

9. We are now in a position to deal with the argument which states that the predication of one predicate, of a subject, "implies," or "involves," the predication of the logical contrary of that predicate, of that subject. In considering this argument we might investigate it in its application at *any* part of the dialectic process; but we shall choose for this purpose the starting-point. There are two reasons for this choice. The first is that the criticisms we shall make seem slightly clearer with regard to this part of the dialectic than with regard to other parts: a fact which is due to the greater simplicity of the first "categories". The second is that if we show that the dialectic process never begins, it will be perfectly clear that it never reaches *any* conclusion; whereas, if we showed that there is a fallacy at some point after the beginning, it might seem that this could be rectified. But our criticism is equally valid against *any* part of the dialectic.

10. The dialectic begins, then, from the consideration that an absolute scepticism is impossible. To say, "there is nothing," or "there is no truth," is to refute oneself. There is at least the act of mind which asserts "there is nothing," and it is true at least that "there is no truth". This is familiar ground, and need not be laboured. The dialectic tells us, to begin with, that we must admit that something *is;* and this we must admit, even though we assert that we are entirely ignorant *what* the something is

This position is taken to mean that the "category of Being is valid"; and this means that we can truly predicate "Being," a simple predicate, of something. It is then pointed out that all that the sceptic must admit is the existence of the *merest* something. Indeed, whatever the thing be, "something" is too definite a word to indicate it. The sceptic must admit that "something is"; but his admission must be interpreted in such a way that, whenever it is asked whether some particular thing is that which the sceptic admitted, we must assert that this particular thing is *more than* the sceptic admitted. The "Being" that is predicated is, as Hegel and his disciples

say, "Pure Being". It is "Being-apart-from-all-determinateness".

The next advance is to assert that "Being-apart-from-all-determinateness" is essentially what we mean by "Not-Being". It is held that this identity of meaning enables, or rather compels, us, to predicate "Not-Being" wherever we predicate "Being" ("Pure Being"). But, according to the dialectic, "Being" and "Not-Being" are logical contraries. Consequently, to predicate both of one subject is to assert a contradiction. We thus require the synthesis "Becoming" to solve the difficulty.

Stated in a perfectly general way the contention assumes the following form: We are compelled to predicate P of S; otherwise, according to the dialectic, every assertion is a contradiction. We then find that P is, *in some respect*, identical with Q. Let us suppose that the "in some respect" is *not* a necessary qualification, and that we have: "We then find that P is identical with Q". The result is that we are compelled to predicate Q of S; or rather, in predicating P we have *ipso facto* predicated Q. We have now predicated of S both P and Q. We did this because we supposed Q identical with P which we were *compelled* to predicate of S. This was the justification of, and the *sole* reason for, our action. On closer investigation, however, we discover that the "in some respect" *is* a necessary qualification; that while we *mean* by P the same as we *mean* by Q, P and Q are really *logical contraries*. Finding that both are predicated of the one subject we recognise a contradiction, and, according to the dialectic, one solution only is possible, namely, the merging of the differences of P and Q in the synthesis R.

11. We submit, briefly, that if P and Q are identical, we predicate Q in predicating P; but that, if P and Q are identical, they are *not* logical contraries, and the joint predication of both of them of one subject presents nothing to synthesise. On the other hand, if P and Q *are* logical contraries, there is not the slightest ground for the predication of the one in the fact that we have predicated the other. And here, also, there is nothing to synthesise.

12. There appears to be an extraordinary confusion in the dialectic between predicates and the ideas of predicates. The dialectic seems to say that the *ideas* of logically contrary predicates are identical,—which is itself an amazing statement—and that we are therefore compelled to predicate logically contrary predicates of the one subject.

Consider the terms "Being" and "Not-Being". The advocates of the dialectic have repeatedly said that the *ideas*

of "Being" and of "Not-Being" are identical. The idea of "Being" is the idea of "Pure Being," not the idea of "Being-Determinate" but of "Being-apart-from-all-determinateness". This, it is said, is what we *mean* by "Not-Being". It is *definitely asserted* that, if we examine what we *mean* by "Being" and "Not-Being," we are unable to *discriminate* between our *meanings*.

So far, however, we are in the realm of *ideas* only. And what have ideas to do with the point at issue? We certainly do not predicate the *idea* of "Being" of anything whatever, nor do we predicate the *idea* of "Not-Being" of anything whatever. Even supposing the contrary, no contradiction would be generated, since it is asserted that the *ideas* are *identical*. If it be admitted that we do not predicate ideas, what explanation of the procedure can be adduced? The logically contrary predicates, it may be said, are, of course, *not* ideas; but we predicate logical contraries because our ideas of them are identical. This, however, is clearly false. If the idea in the mind of a person when he uses "Being" as a symbol is *not discriminable* from that in his mind when he uses "Not-Being" as a symbol, it is simply contradictory to say that the person *means* one predicate by "Being" and its logical contrary by "Not-Being". He means the same thing by the two words.

13. We have supposed,—what is absurd,—that ideas may be used as predicates. It would generally be admitted that this supposition is absurd. Nevertheless, it is this absurdity which seems to have been committed by the dialectic. Because of an identity between ideas of logically contrary predicates, in "affirming Being," it is said, we are "affirming Not-Being". It is added that the ideas manifest an "identity in difference". This means that they are "identical" in one part, and "different" in another; that one is Xy and the other Xz. The difference must be temporarily suppressed when it is said that in "affirming" the one, we are, *ipso facto*, "affirming" the other. By virtue of indiscernibility of "difference," and by virtue of this alone, Xz is "affirmed" when Xy is "affirmed". The suppressed "difference" is then brought forward, and there is considerable astonishment over the fact that ideas, which could *not* be *discriminated* from each other, are really logical contraries. The simple solution is that meanings have been altered to suit the stage of the process.

14. To "affirm Being" is to predicate existence of "something". If there is in reality a predicate corresponding to our *idea* of "Being," when we use that *idea* in "affirming

Being" we are making a true judgment. If we use an idea different from the idea of "Being," it matters not how slight the difference and how great the similarity, we do *not* know that, because there is something in reality corresponding to the idea of "Being," there is *also* something in reality corresponding to this other idea. It is a fallacy, therefore, to "affirm" the one on the ground that we have "affirmed" the other. If we make two judgments, of which each attributes the same predicate to the same subject, we make no advance in thought in making the second of the two; but if, as is necessary for the occurrence of the contradictions on which the dialectic relies, our two judgments attribute each a different predicate to the same subject, we are not justified in making the one judgment when we have made the other, on the ground of a *point* of identity between, either the predicates, or the ideas of the predicates.

The dialectic requires that the relation of "implication" should hold between logically contrary predicates. We would thus be able to infer "S is Q" from "S is P," where Q and P are logically contrary predicates. Curiously enough, no contradiction now results. If logically contrary predicates "implied" each other in the above way, there would be instances of two contrary propositions *both being true.* It is generally assumed that two contrary propositions cannot *both* be true, and the dialectic accepts this assumption. On the above theory, however, two contrary propositions would both be true, and there would be an end of the matter. The difficulty which the principle of the dialectic is directed to remove is that we are compelled to *believe* true both of two logically contrary propositions. Yet, if we ask why we are compelled to such a belief, we are referred to "implication" between logically contrary predicates; but this, clearly, is a false theory, and, even if true, would not generate the contradictions. The fact seems to be that the reason for asserting our compulsion to this belief is to be found in the asserted "indiscernibility of meanings" of logically contrary predicates; the relation between *meanings* being transferred to predicates without the confusion being realised.

Put otherwise: the relation of "implication," as used by the dialectic, must hold *either* between predicates, *or* between entities other than predicates. If it holds between predicates, no contradiction is generated, since then two contrary propositions can *both be true.* Consequently, "implication" must hold between entities other than predicates. We discover that these entities are the *ideas* of the predicates, and that the relation between them is that of identity, or partial identity. If it

is identity, the predicates of which they are ideas *cannot* be logical contraries. If it is partial identity, we cannot legitimately attribute to a subject the predicate corresponding to the one, because we have attributed to it the predicate corresponding to the other. Here, also, no contradiction is generated.

15. We conclude, therefore, that so far as the argument we have considered,—which is the fundamental argument adduced in support of the dialectical principle,—is concerned, the dialectic can never begin. For no contradiction of the kind upon which the dialectic relies for its beginning, and advance, can possibly be generated in the way this argument asserts it to be generated.

16. (ii.) The other argument by which the dialectic seeks to show that contradictions of a certain kind are inevitable, has been stated (§ 3) in the form that the demands of the "Understanding" lead to contradictions if we apply to Reality any predicate except "the absolute Idea". According to the dialectic the demands of the "Understanding" are two.

(*a*) It is said, first, that the "Understanding" demands that the various "categories," that is, the various *predicates*, be treated as "independent," and ultimate, entities. The force of "independent" here is that the "Understanding" demands that predicates must not be "merged" in "higher" predicates, as the syntheses of the dialectic attempt.

This contention may be criticised in two ways. In the first place, the "demand" of the "Understanding" here put forward is a pure fiction. It is false to assert that the "Understanding," or anything else, demands *a priori* that predicates must have certain relations to each other. If such a demand were made, it should be treated, just as the Universe would treat it, as a mere piece of impertinence. It cannot be truly said that, if we think at all, we *must* treat predicates as "independent," and ultimate, entities. The chief condition for precise thinking is that we keep our *ideas* definite and distinct, whether they are ideas of predicates, or of subjects. We do demand that, if two predicates *are* two, that is, if they are different, they shall not be regarded as one. We demand that distinction and difference, where they are discovered, shall be recognised, and acknowledged. But the "Understanding" which demands, *a priori*, that predicates shall stand in certain relations to each other, must, surely, be the "Understanding" of primitive man. We deny, therefore, that this particular "demand" is a demand.

Granting, however, what is plainly false, that the "Understanding" does make this demand, what follows? Either, the Universe will satisfy it, or it will not. The theory proceeds to say that this demand *cannot* be satisfied, because, to predicate any *one* "category," regarded as "independent," and ultimate, of reality, is to reach a contradiction. But how does this contradiction arise? It may be said to arise in the way we have already considered and found invalid, namely, by the asserted "implication" between logically contrary predicates. Assuming that this method of generating the contradiction fails, what other method remains?

One such method attempts to show that predication itself involves contradictions, that is, that the "relational way of thought" cannot move without contradictions. But, if we assert a proposition of the form "S is P," how does the contradiction arise? It could arise if we consider "S is P" equivalent to "non-P is P" and the *is* in "non-P is P" as the sign of identity. This, however, would be an error; and if *is* be taken as the predicative copula, no contradiction arises.—Again, it is said that mere relatedness involves an infinite regress of a vicious character, and that in this fact the "Understanding" is plunged into contradictions. But until something more than reiterated assertion is adduced in favour of the infinite regress involved in relatedness, we may be content with what direct apprehension appears to reveal, namely, that relatedness involves *no* infinite regress, vicious or otherwise.—These are the only methods by which the attempt is made to prove that *any* assertion "involves" contradictions.

There is, then, no contradiction in the attribution of a predicate to a subject, though a judgment which states such predication may be false. In asserting a subject-predicate proposition, we are not asserting, nor assuming, that the predicate is an "independent," and ultimate, entity. We are not asserting *any* relation between this and other predicates. We are asserting a relation between a predicate and a subject; that is, we are stating that there is a complex of a particular kind, a unity of a particular and a universal. This contains no contradiction.

This "demand" of the "Understanding" is sometimes made still more extraordinary. It adds that some one proposition must express the *whole* truth. This, at least, appears to be what is meant, when it is said that the "Understanding" demands that "Being," for example, shall be an "adequate expression of Reality". Of course, the "Understanding" which demanded this would have perpetrated an

absurdity, and no advocate for it could be found. But whose "Understanding" demands such an extraordinary thing?—This whole argument must, therefore, be dismissed as baseless.

(*b*) The other "demand" of the "Understanding" is for a "complete explanation" of the Universe. Following on the assertion of this demand, it is contended that the "Understanding" cannot attain a "complete explanation," because of the nature of the "categories" which it employs. This difficulty, it is said, can be overcome by the syntheses which "Reason" waits to perform. It is added that the "Understanding" *must* allow "Reason" to perform this function, because the difficulty has arisen through a "demand" of the "Understanding" itself.

Before we are willing to admit that the "Understanding" demands a "complete explanation" of the Universe, we must be told quite precisely what is meant by a "complete explanation". After this has been done, we shall be in a position to decide whether the "demand" is a fact, and also, if it leads, as is asserted, to contradictions.

What, then, is "explanation"? We are told that the aim of the dialectic is both the "complete explanation" and the "complete rationalisation" of the Universe; and it is held that the dialectic has accomplished its aim. "Explanation" is, then, "rationalisation". But what is "rationalisation"?

The first step in the attempt to prove that the Universe is "completely rational" is to prove that it is "partially rational". This is supposed to be accomplished when it is shown that there is at least one true proposition, for example, "something is". To apply a predicate to a subject is, therefore, "to rationalise" partially, and, consequently, "to explain" partially, that subject. It would seem from this that any subject would be *completely* "explained," or "rationalised," if we knew all the propositions concerning it which were true. And this is *part* of what is meant by "complete explanation". It is said that "the Absolute Idea" is the only "category" which *completely* "explains" everything. "The Absolute Idea" is said to have the "lower categories" "implicit" in it. In predicating "the Absolute Idea," one is, therefore, *ipso facto* predicating *all* the "lower categories". If this, however, were all that the dialectic means, its contention would be trivial. No particular subject except the Universe could be "completely explained" or "completely rationalised," if this result with regard to any subject followed only when "the Absolute Idea" could be predicated of it. For of no subject, except

the Universe, are *all* the "categories" truly predicable. To say that "the Absolute Idea" is predicable of the whole of reality, means, so far, only this: that within the Universe *all* the "categories" are, somewhere or other, to be found. This is not a particularly novel, nor important, statement. It cannot be *merely* this meaning of "explanation" which the dialectic has in view when it accuses the "Understanding," in demanding a "complete explanation," of demanding something which it cannot attain without contradiction. For this meaning of "explanation" does not lead to contradictions.

In attempting to discover what this asserted "demand" of the "Understanding" is, we may compare it with another which is frequently, but inconsistently, associated with it. This is the demand for "complete knowledge". We recognise that the *ideal* of "complete knowledge" is legitimate, and that it is compatible with very great present ignorance. But ignorance, when brought face to face with the "demand" for "complete explanation," is supposed to generate a contradiction. Whence arises this difference between "complete knowledge" and "complete explanation"?

It is a significant fact that, when illustrations of the contradictions, which are supposed to be "involved" in this "demand" of the "Understanding," are given, they have almost always some reference to causality. On closer examination we discover that this demand for a "complete explanation" is a demand for a "complete knowledge" of all the causal relations in the Universe. The "Understanding," it is said, demands that every piece of knowledge should be a knowledge of the *whole* cause of some "fact". This demand, it is asserted, is contradictory, because we never know the *whole* cause of *any* "fact". It is said that the cause of one phenomenon is to be found in surrounding phenomena, and that the sphere of "explanatory" phenomena gradually increases until it contains the whole of the present state of the Universe, while this again must be causally "explained" by prior states of the Universe, and a vicious infinite regress is the result. The "Understanding" demands, but can never obtain, because of the self-contradictory character of the demand, the knowledge of the cause of everything. This is the essence of the difficulty which the dialectic raises against the "Understanding".

Apart from the meaning of "cause," as used by the dialectic, consider this "demand" of the "Understanding". The "category" of cause is, for the dialectic, one among a large number. We have defined a "category" as the defining of

function of a class. The "demand" that we should know completely the causal relations in which every constituent of the Universe stands to every other, is, as interpreted by the dialectic, a demand that all the constituents of the Universe should be members of some one *selected* class. It is clearly conceivable that there might be constituents of the Universe *not* causally related. The "Understanding" is thus supposed to "demand," *a priori*, that this possibility is not the case. The most natural question to ask here, is: What right has the "Understanding" to make this demand? And the answer is, briefly, that it has no right whatsoever. If we are to decide, *a priori*, what are the various relations which unite entities, our results, to say the least, will have a very ambiguous worth. Further, it seems utterly false to say that the "Understanding" makes this demand. This will appear from an examination of the Hegelian meaning of "cause".

The dialectic assumes that one entity, not one *event*, is causally related with other entities. It thus uses "cause," most generally, to mean "efficient cause". It carries the doctrine of "efficient causality" to the extreme by asserting that every *entity* is the partial "cause," and the partial "effect," of every other. The difficulty which the dialectic brings forward then seems to arise thus. *Any* and *every* piece of knowledge is supposed to be a knowledge of "causality". The knowledge of the "cause" of any one entity is supposed to require a knowledge of the "cause" of *all* entities. We are supposed not to have this knowledge. Consequently, it is said, we have no knowledge,—a self-contradictory statement.

It should be pointed out, first, that if "cause" be used in the scientific sense to indicate the subsumption of *events* under laws, no contradiction can be generated from it. It must then be asked whether the *Hegelian* theory, that every entity determines partly, and is partly determined by, every other, is really a demand of the "Understanding". It must be asked, further, whether, if the dialectic knows this theory to be true, we have not even now a *complete* knowledge of "causality". This the dialectic denies. What is *really* denied, however, is that we have a complete knowledge of all causal laws, that we have a complete knowledge of "cause" in the scientific sense of the term. The appeal to this meaning of "cause" at this point is quite illegitimate. The argument requires one meaning of the term to be used throughout. If the scientific meaning be adopted, there is no contradiction in this "demand". On the other hand, if

the characteristically Hegelian theory of "causal" interdependence be accepted, we already know the whole truth about causality, and the only apparent way in which our knowledge could be increased would be by the direct apprehension of every constituent of the Universe. This, however, would not affect the reciprocal interdependence of the parts of the Universe. But how do we attain the knowledge of this interdependence? The fact is that it is an assumption, which the "Understanding," on discovering its character, is very willing to discard.

It must always be illegitimate, and fallacious, to suppose that the human mind demands something which *may* not be the fact. Here, the "demand" of the "Understanding" is equivalent to the assertion,—for the making of which there appears to be no explanation but an attenuated imagination, —that the Universe has a character, which, conceivably, it may *not* have. This contention seems to have been largely due to the failure to recognise what is the scientific meaning of "cause," and to the adoption of a somewhat anthropomorphic notion in its place. This notion is found to generate difficulties. If so, why not at once cast it aside? It is not necessary for thought, especially since *not* every proposition expresses a "causal" relation. It probably seemed to the reflective savage that the "Understanding" demanded that a thunderstorm be regarded as the activity of a malignant god; but we have outgrown that demand. It seems high time that we should reject those "demands" with which idealistic philosophy has so constantly attempted to reach the nature of the Universe.

The demands of man are relevant in psychology, in ethics, and chiefly in life. The one demand of the philosopher which is worthy of veneration is the demand for the truth; but this means that he shall be willing to class entities where they belong. When, in general, the demands of man are referred to, it is important to know a great deal about man; otherwise, the "demands of man" are likely to be the personal demands of the speaker. What doctrine is more peculiarly *Hegelian* than the doctrine that every constituent of the Universe is partly the "cause" of, and is partly "caused" by, every other? It is this doctrine which the dialectic asserts to be a "demand of the Understanding".

17. We conclude that the arguments which are used to prove that the "Understanding" is necessarily "involved" in contradictions, are fallacious. If this conclusion, and our former one (§ 15) are true, the important result is reached that the dialectic must expire at its very birth, for the means

of its life,—certain specified contradictions,—are not to be found.

18. Let us now consider the distinction, insisted on by the advocates of the dialectic, and by others also, between the "Understanding" and the "Reason". This distinction is a heritage from the Faculty Psychology, and is of a kind which modern psychology cannot admit. It would be extremely rash to maintain that any conclusion of modern psychology is so certain as to be beyond the possibility of modification. Nevertheless, modern psychology is, in view of its investigations, only acting reasonably when it asks: What *is* the "Reason," and what the "Understanding"?

19. The terms "Reason" and "Understanding" are frequently used as though they denoted psychological facts; and in answer to a question concerning their reference, we expect, in the light of many statements in which these terms occur, to be shown two types of thought, one of which is "higher" than the other. We are at times distinctly told that the "Reason" and the "Understanding" are two "varieties" of thought; and whatever be the precise language used to denote the distinction, there is no doubt that these terms are *meant* to refer to psychological phenomena. From various statements made by the advocates of the dialectic, we should expect to find some such theories of the two as that the function of the "Understanding" is to judge, while "Reason" possesses insight; or, that the "Understanding" can pass round the externals only, of things, while "Reason" penetrates to their very essence; or, that the "Understanding" is merely descriptive, while "Reason" is interpretative. But while all this is suggested, no precise theories are offered. Instead of psychological analysis, which is merely adumbrated, we are given *two different theories of Reality*, of which one, it is said, is held by the "Understanding," and is riddled with contradictions, while the other, it is asserted, is held by the "Reason," and is self-consistent and satisfactory.

20. The theory of the "Understanding," as stated by the dialectic, is pluralistic. It tends to over-emphasise distinctions, even to the point of denying that certain relations unite entities into wholes. The theory of the "Reason," as stated by the dialectic, is monistic. It tends to deny differences, and to assume *a priori* a principle of intimate unity.

21. The important point to note is that the sole philosophical question relevant to these two theories does not concern their supporters, or their originators, but their truth. One kind of argument might question whether there *are* two

varieties of thought. It might suggest that "Understanding" is merely a name for exactness, and "Reason" a name for a number of mystical and anthropomorphic tendencies, whose vogue is passing. It might urge that thought is essentially one. Some such argument *might* be adopted, and *might* be successful against the use that is made of the terms "Reason" and "Understanding" by advocates of the dialectic. The essential point, however, lies elsewhere. It must be recognised that, whatever distinctions may be discovered between mental phenomena, the distinction between "Reason" and "Understanding," as used by the dialectic, is really between *two theories of Reality*. The dialectic wishes to show that one of these theories is true, and to discredit the other. It seems to have been accepted, because of some misapprehension, that "Reason" is "higher" than the "Understanding": certain *desires* have then been supposed "demands" of "Reason"; finally, it seems to have been believed that, since "Reason" is "higher" than "Understanding," the "demands" of "Reason" must be realised.

It is useless, however, to urge in proof of the falsity of a certain theory that it is held by the "Understanding". It is even more: to introduce, as the dialectic does, the distinction between the "Reason" and the "Understanding," is to draw a red herring across the track. We repeat: the distinction is simply between two philosophical theories; and the sole question, provided they are both clearly stated, is: *Which*, if either, *is true?* The "backers" of a theory do not determine its truth.

22. We conclude that the distinction between the "Reason" and the "Understanding," as used by the dialectic, denotes merely a distinction between two philosophical theories. It should be remembered, also, that modern psychology admits no such distinction between mental phenomena.

23. If the preceding criticisms are sound the Hegelian dialectic, considered as a metaphysical argument, is invalid. The opposite conclusion has been, and is, upheld, by a considerable number of philosophers. It is difficult to understand that there could be such advocacy of the dialectic as there undoubtedly has been, and is, if the dialectic did not deal with facts. These facts, however, may not be those with which its advocates believe it to deal. Indeed, if our conclusions are valid, this must be the case. Consequently, the question very naturally arises: What are the facts with which the dialectic deals?

24. The dialectic appears to be an analysis of psychological phenomena only. It has been urged by others that the dialectic is "subjective". It is not in general clear what this criticism means, and we shall not state our interpretation in that form. It is necessary to remark, however, that the various replies, by those who accept the dialectic, to criticisms against it on the score of its "subjectivity," seem to be little else than attempts to show that Hegel certainly *meant* the conclusions of the dialectic to be "objective," to apply to all Reality. But was this doubted by those who asserted that the dialectic is "subjective"? Their point surely was that the facts, upon which the dialectic is based, do not allow of a valid inference to all reality; and this contention is not met, satisfactorily, by saying that Hegel believed otherwise. It can only be met satisfactorily by showing that the inference is valid. It is doubtful, however, as a rule, just what are the facts with which the dialectic, according to those who criticise it as "subjective," is supposed to deal.

The theory here put forward is that the dialectic is a treatment of the question of *meaning*, a question of the first importance in psychology, where it has received little attention, and of even greater importance in metaphysic. One of the chief aims of thought is to discover the relations which hold between the entities, which, we believe, are the objects of our ideas. We are generally so busily engaged in the attempt to realise this aim, that we sometimes forget that we are using ideas, and tend to think that the ideas are the things. We fail, also, to recognise the manner in which meanings come to birth in our minds, and in what relations they stand to each other once they have made their appearance. We have acquired the habit of thinking of ideas as though they possessed the rigidity of chunks of wood, or pieces of quartz. We do not recognise how perfectly fluid the world of ideas is. Yet here, if anywhere, is to be found the Heracleitean flux. The possibility of exact thought, depends upon the possibility of keeping ideas, or meanings, definite,—a task which is always difficult. Once we have "got" an idea, we are, curiously enough, inclined to think that it always was perfectly definite; that its edges are just as clear-cut and well-defined as are those of the entity to which it refers. Yet it is the most commonplace experience that, notwithstanding all our efforts, our ideas are constantly merging into one another. To-day we associate with a certain symbol an idea which is different from the idea we associated with it yesterday. Even in the one discourse as we speak, in the one paragraph as we write, we have to watch

our meanings most carefully lest they change,—it may be ever so slightly, yet sufficiently to render our conclusions invalid. All the emphasis which has been laid upon the importance of the middle term of the syllogism is due to the tendency of meanings to pass, quietly and unostentatiously, into one another.

Meanings are like gases: sometimes they mix without noticeable result, gliding imperceptibly into each other; sometimes they sparkle into vitality at the merest contact. Similarity between ideas renders them dangerous for thought. Differences are frequently unnoticed because of the fact that images are generally associated with ideas, and often mistaken for them. The same image may be associated with several different ideas. We then tend to think the ideas identical. Again, different images may, on different occasions, be associated with the same idea. We then tend to think that we have had different ideas on the different occasions.

It appears practically certain that the doctrine of the identity of the *ideas* of "Being" and of "Not-Being," for instance, has been due to a confusion between ideas and images. It was believed that the idea of "Being" ("Pure Being") could have no definite image associated with it, for the reason that it was the idea of "Being-apart-from-all-determinateness," while the association with it of a definite image seemed to make it the idea of "Being-Determinate". It was believed that the idea of "Not-Being," also, could have no definite image associated with it: otherwise, it seemed to be the idea of "Something". When, then, a philosopher thought the ideas of "Being" and of "Not-Being," he had in each case to repel any image which might be present, as having nothing to do with the *idea.* After this had been done, he curiously attempted to find the difference between the two ideas in difference of *images;* and, as he found no difference here, he considered the ideas identical. Since, however, the words "Being" and "Not-Being" are formally contrary, he supposed that they indicated contrary entities. It seems never to have occurred to him that, if he used "Being" and "Not-Being" to indicate *different* entities, the ideas of "Being" and of "Not-Being" *could not* be identical.

The kind of result arising from similarity between ideas may be illustrated as follows. The idea of a man is distinct enough from the idea of a woman. But the idea of a man is more similar to the idea of a woman than it is to that of an ape. Suppose now that some person is interested in the

Suffrage question, and desires to prove that some proposition is true of men, as opposed to women. He discusses the question, and as the discussion advances refers to earlier conditions of society. The idea of evolution is thus suggested to him, and this, in its turn, suggests the idea of an ape. He concludes by proving a proposition, which, to his amazement, is true of both men and women, as opposed to apes.

But one of the most extraordinary things about ideas is their contrast effects. One meaning becomes more significant and definite, when brought into contact with its contrary. According to the old dictum, we know a given thing more fully, the better we know its opposite. In the opinion of Nietzsche, we can tell the truth only after we have learned how to lie. From this relation between ideas one is easily led to say that an *idea* "implies," or "involves," its contrary. This may, in a sense, be true. It may be the case that we would have no idea of virtue if we had no idea of vice. But this fact must not, so to speak, be objectified; we must not think that there would be nothing corresponding to the idea, which we now have, of virtue, if we did not have the idea, which we now have, of vice.

The Hegelian dialectic appears to be a study of the way in which various meanings, generally regarded as primarily "logical," are connected in our minds. It shows how, beginning from the "simplest idea" which we possess, the idea of "Pure Being," we can pass, by gradual steps, by means of similarity and contrast, to the "highest" idea we possess, "the Absolute Idea". The various stages in this process are, sometimes, contrary ideas, though, as we proceed to the "higher" "categories," the contrary character is not so marked. Here, in the language of the dialectic, one meaning "completes" the other. It is seen that one idea gradually arises, and becomes definite, through a reciprocal backward and forward movement with another, and *vice versa*. Each adds to the other's significance, throws it into relief, and helps us to grasp it more securely. This process continues until we reach "the Absolute Idea". The Hegelian dialectic then, illegitimately, objectifies this mental process; but, so far as the dialectic is valid, it appears to be a description of the psychological process only.

25. We may now briefly summarise our conclusions. We have maintained the three following propositions:—

(*a*) The contradictions upon which the Hegelian dialectic relies for its commencement, and advance, do not occur; consequently, the dialectic process can never begin, and no theory of the Universe can be established by it.

(*b*) The theory of the supremacy of the "Reason" to the "Understanding" appears to be rejected by modern psychology, and is, in any case, wholly irrelevant to the validity of the dialectic.

(*c*) The dialectic, so far as it is valid, is simply a description of certain psychological phenomena, namely, of the growth of meanings and the relations between them.

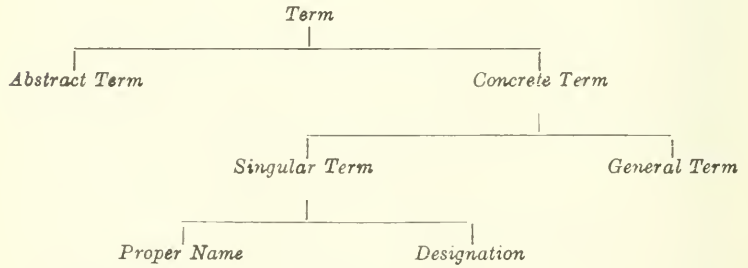
V.—DISCUSSIONS.

A PROPOSED NEW CLASSIFICATION OF TERMS.

In the traditional Logic of the text-books, amid much that is confused, there are few things more chaotic than the usual classification of terms. And the heart of the chaos (if indeed it be sufficiently organized to have any heart at all) lies in its insistence on the distinction (derived from Aristotelian Logic) between the General and the Singular Term.

"The Distinction", writes J. S. Mill, "between *general* names, and *individual* or *singular* names, is fundamental; and may be considered as the first grand division of names."[1] Mill here uses the words "*individual*" and "*singular*" in the same sense; but their occurrence here together may suggest a doubt whether the time-honoured opposition between the General and the Singular Term, instead of being, as Mill thinks, itself "fundamental", does not involve a fundamental fallacy, since it confuses and obscures two important, true, and mutually independent distinctions,—that between the General (*i.e.* the Universal) and the Individual Term on the one hand, and that between the Singular and the Plural Term on the other.

Mr. H. W. B. Joseph regards the distinction between the Singular and the General Term as a division not of the Term but of the Concrete Term, and I venture to think that his reasons for holding this view are more instructive than he himself has noticed. His exposition[2] may be tabulated in the following divisional classification of terms.



[1] *A System of Logic . . .*, bk. i., ch. ii., § 3.

[2] *An Introduction to Logic* (Oxford, Clarendon Press, 1906), ch. ii., pp. 18-24.

Trammelled as he is by the traditional doctrine that the distinction between Singular and General Terms is absolute, so that no term can ever be both simultaneously, and holding that (as, following Mill,[1] he defines the distinction) "A general term is . . . *one that is predicable of any number of individuals in the same sense*", while "a singular term is *one that is predicable of one individual only in the same sense*", he is driven to the conclusion that (since abstract terms are not predicable of any individuals at all) "The distinction of singular and general is not applicable to abstract terms."[2] Thus, though degrees of generality obviously belong to many abstract terms,—though "Quality" is more general than "Colour", and "Colour" (as Mr. Joseph himself seems to allow) is of higher generality than "Blue", and "Blue" than "Peacock-blue", yet none of these can, according to Mr. Joseph, be called a general term; and, although abstract terms are almost always of singular form, yet no abstract term can ever be called singular.

This is only one out of many anomalies and inconsistencies which inevitably result from the traditional opposition of the Singular to the General Term. If our primary distinction were that between the Individual Term (*i.e.* the term of particular application) on the one hand and the General Term (*i.e.* the Term which indicates an universal) on the other, and if secondary distinctions were made between Singular and Plural Terms, then these anomalies would disappear. A general term might also be singular, and an individual term might be plural; while all abstract terms, since they indicate universals, would be, in the new sense of the word, "general".

Further, although the division of the Singular Term into the the Proper Name and the Designation seems at first sight to be an obvious and serviceable distinction, yet here again we are confronted with the absurdity of regarding *plural* Proper Names such as "The Andes" and "The Pleiades" as singular terms; and it surely may be doubted whether a term of such definitely individual application as "The ears of Midas" or "The Cheshire Cat's whiskers" ought not to be regarded as a plural designation rather than either a "general" or a "singular" term.

Not to speak of the sufficiently obvious fact that the examples usually given of general terms are more often of singular form than not, it is also quite evident that plural terms are so far from being necessarily general that in many and indeed most cases they are as individual as any singular term can be. When an oculist says to me "*YOUR EYES are of very different focus*", it is very certain that *the subject-term of his proposition* is neither the general class-term "*Eye*" nor any other general term that could be proposed. On the other hand it obviously is not singular. Nor is there any way, on the basis of the traditional division of the

[1] *A System of Logic . . .*, l.c. [2] *Ibid.*, p. 24.

Term, to reduce such a statement to (so called) strictly "logical" form[1] without violently distorting its meaning. It is difficult to believe that any self-respecting logician can really be content with such artificial absurdities as "*Your-right-eye* is *an-eye-of-which-the focus-differs-greatly-from-that-of-your-left-eye*" or "*Your-pair-of-eyes* is not *a pair*."

This line of argument would seem to suggest a new classification of Terms, which would recognize both the Singular General Term on the one hand and the Plural Individual Term on the other. Another distinction—that between the Determinate and the Indeterminate Term—would, I am convinced, be both useful and important, though I have not space adequately to defend it here.

That terms of the form "an s" (referring to an individual member of the species S) may be individual and not general terms is recognized by Dr. Venn,[2] who tells us that they were formerly called "individua vaga", and himself acknowledges them to be "truly singular names". Strangely enough, however, he seems to recognize them only as subject-terms, and of their possible use as predicates he says nothing whatever. But to regard such terms as individual subjects, while, when they are used as predicates, we call them *general* is clearly impossible. If, when I say "*A POODLE is in my possession*", my subject-term is individual, then when I say "*My dog is A POODLE*", my predicate is certainly not a class-term.

But as soon as we recognize this, it becomes evident that plural terms of the form "s's" (referring to individual members of the species S) are also not general terms at all. It would be absurd to say that the proposition *My dog is a poodle* has an individual predicate, but that *My three dogs are poodles* has for its predicate any kind of general term. The second predicate is indeterminate and plural, not determinate or (like the first predicate) singular; but its application to individual objects is quite as unmistakeable as that of the former predicate, and it is quite as far as that from being identical with the general class-term *Poodle*. So also not only are the singular determinate terms *This poodle* and *The poodle who lives next door* individual terms, but the plural determinate terms *These poodles* and *The poodles I have known* are individual too.

We have, further, to consider singular terms of the form "a g" (referring to a species or kind of the genus G), and plural terms of the form "g's", referring to *kinds of G*. These are not infrequent, and they are all, in a sense, general terms. When I say that *The Chimpanzee is AN ANTHROPOID APE*, I mean not that he is an individual anthropoid ape, but that he is *a sort of* Anthropoid

[1] I am not prepared to defend this expression.

[2] *The Principles of Empirical or Inductive Logic* (Macmillan & Co., 1889), ch. vii., p. 168.

Ape; and when I say that *some VELVETS wear well*, I mean that certain *kinds of* Velvet do so; and to these *indeterminate* specific or (to use a more correct word) *indeterminate special* singular and plural terms there are corresponding *determinate* special terms. When I say that *The Gorilla is THE MOST ANTHROPOMORPHIC APE*, I mean that he is *the kind of* Ape that most nearly resembles Homo; and when, after describing the Gorilla, the Chimpanzee, the Orang-utan, and the Gibbon, I go on to say that *All THESE APES belong to the Family Simiidae*, I mean that all *these kinds of* Ape are classified under that Family-name.

Over against all these forms of the *Special Term* we have the *General Class-name* not expressed as one out of a number of co-ördinate species. To this we may give the name of *Generic Concept Term* so as to distinguish it from the *Special Terms* just now cited. But this name is, of course, to be understood only in a relative sense, and not as precluding that aspect of any generic term in which it is seen to be a species of some higher genus.

I give on next page the proposed Classification of Terms in tabular form.

I cannot here defend at length this proposed classification. Its value could be tested only by a detailed inquiry into its application in relation not only to Proposition but also to mediate and immediate Inference, and I cannot within the limits of this article attempt any discussion either of the few obvious difficulties which this application would present or of their (I think equally obvious) solutions. I propose therefore merely to comment on two of the most prominent features of this new classification-scheme, namely (A) the distinction between the Singular Special and the Singular Individual Terms, and (B) the admission of Determinate Plural Terms.

A. If Mr. Bertrand Russell is right in declaring that "A logical theory may be tested by its capacity for dealing with puzzles",[1] then it is relevant to claim for the distinction between the *Singular Special* and the *Singular Individual Term* that it affords the only solution for logical puzzles of many different kinds. As a single example we may cite a syllogism given by Prof. Jastrow in the *Journal of Education* (February, 1897), and quoted by Dr. Keynes.[2]

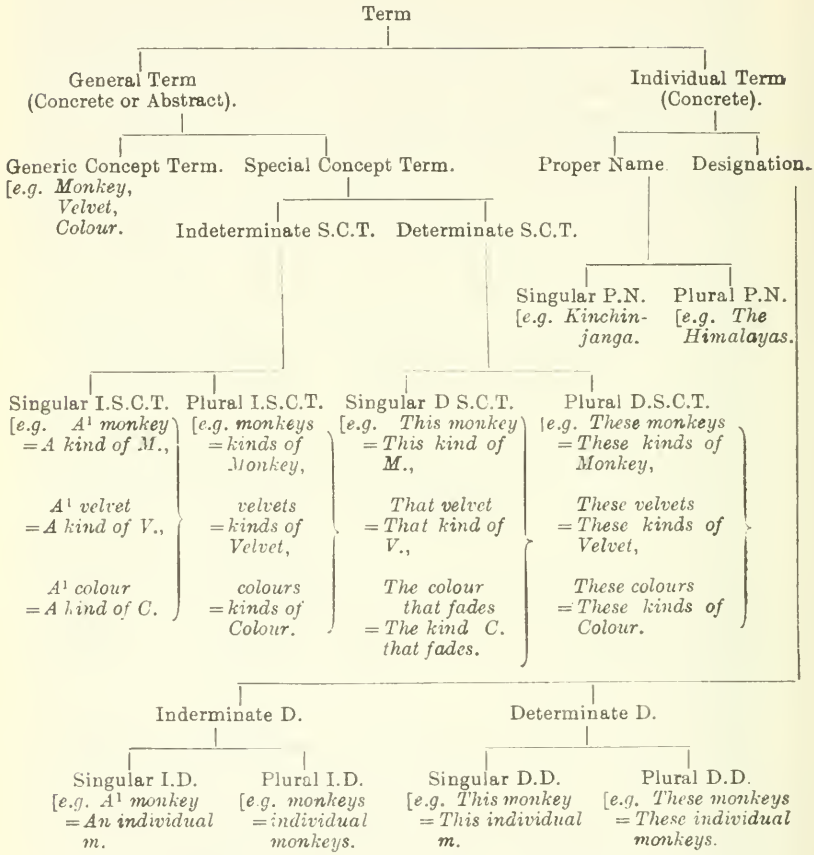
If you grant, says Prof. Jastrow, that *A is B*, I can prove therefrom that *B is A*. For either B is A or it is not A.[3] "If B is not A, then by our first premiss we have the syllogism—*A is B*,

[1] "On Denoting", an article in MIND, New Series, vol. xiv. (Oct., 1905), p. 484.

[2] See *Studies and Exercises in Formal Logic . . .* by John Neville Keynes, M.A., Sc.D., Fourth Edition (Macmillan & Co., 1906), p. 438, section 404.

[3] I have here slightly modified the wording, in order to avoid the use of the so-called negative term, *not-A*.

B is not A, therefore *A is not A*, which is absurd. Hence it follows that B is A."


Term
General Term (Concrete or Abstract).
Individual Term (Concrete).
Generic Concept Term. [e.g. Monkey, Velvet, Colour.
Special Concept Term.
Proper Name
Designation.
Indeterminate S.C.T.
Determinate S.C.T.
Singular P.N. [e.g. Kinchinjanga.
Plural P.N. [e.g. The Himalayas.
Singular I.S.C.T. [e.g. A¹ monkey = A kind of M., A¹ velvet = A kind of V., A¹ colour = A kind of C.
Plural I.S.C.T. [e.g. monkeys = kinds of Monkey, velvets = kinds of Velvet, colours = kinds of Colour.
Singular D S.C.T. [e.g. This monkey = This kind of M., That velvet = That kind of V., The colour that fades = The kind C. that fades.
Plural D.S.C.T. [e.g. These monkeys = These kinds of Monkey, These velvets = These kinds of Velvet, These colours = These kinds of Colour.
Inderminate D.
Determinate D.
Singular I.D. [e.g. A¹ monkey = An individual m.
Plural I.D. [e.g. monkeys = individual monkeys.
Singular D.D. [e.g. This monkey = This individual m.
Plural D.D. [e.g. These monkeys = These individual monkeys.

Now, this argument would, of course, break down if we were to insert quantity-marks, for we cannot say *Either all B's are A's or no B's are A's*, but only *Either all B's are A's or some B's are not A's;* and this would give us, instead of Prof. Jastrow's valid syl-

[1] We must bear in mind that our Indefinite Article is ambiguous. "*A monkey*" may mean either *A certain monkey* or else *Any monkey*,—it may mean either *Simia quaedam* or *Simia quaelibet*. Thus each of our two kinds of Singular Indeterminate Term ought, strictly speaking, to be divided into two alternative species, of which one might be symbolized by *A g* (if special) and *An s* (if individual), the other by *Any g* and *Any s*. It seems, however, hardly necessary thus further to complicate our classification-scheme, provided that we do not forget the fact that each of our singular indeterminate terms has two distinct meanings.

logism in Camenes, the invalid pseudo-syllogism AOO Fig. iv, which exhibits the fallacy of Undistributed Middle. But where A and B are both Terms of singular form the argument is perfectly valid. Where they are both Singular Individual Terms, this is as it should be, for in that case if A is B, B *is* A. If the brightest star in Lyra is Vega, then Vega *is* the brightest star in Lyra; if the dullest logical article that ever was written is this present document, then this present document *is* the dullest of logical articles. But if A and B happen to be abstract terms, the argument (which, according to the ordinary doctrine, must still be accepted as perfectly valid) may land us in manifest absurdity. Given the proposition: *Almsgiving is Charity* (a statement which, according to the traditional doctrine of Predicables, is perfectly legitimate), then either Charity is Almsgiving or it is not. If it is not, we have either Prof. Jastrow's syllogism in Camenes or the more natural argument in Celarent:

Charity is not Almsgiving
Almsgiving is Charity

∴ Almsgiving is not Almsgiving.

This being an absurd conclusion, we must admit the proposition "*Charity is Almsgiving*", and we thus find ourselves making a ridiculous statement which identifies the farthest-reaching and the most universally inclusive of virtues with one of the least important of its species. As soon as we recognize the fact that "*Charity*", the predicate-term of the given proposition, is *special*, and means *A KIND OF Charity*, our syllogism is convicted of Ambiguous Middle; and the difficulty entirely vanishes, for the Proposition *Almsgiving is a kind of Charity* is, obviously, simply convertible, and no one need hesitate to admit that *A kind of Charity is Almsgiving*.

B. A still more important feature of this new classification of Terms is the admission of *Determinate Plural Terms*. These, though in very frequent use, are altogether ignored by the ordinary classification. *Indeterminate* Plural Terms indeed are not ignored, since they are all (as I think erroneously) treated as General Terms; but *Determinate* Plural Terms, whether Individual or Special, can find in the usual scheme no place at all. Their recognition as possible subject-terms makes easy and natural the reduction to the form of Subject and "Predication",[1] or even to that of Subject, Predicate, and Copula, of certain propositions which Dr. Bradley has assured us are irreducible, and which un-

[1] See *Logic, or The Morphology of Knowledge*, by Bernard Bosanquet, M.A., LL.D. (Oxford, Clarendon Press, 1888), vol. i., pp. 80, 81, 83.

doubtedly are irreducible so long as we are tied down to the traditional classification of terms.

Thus the most baffling examples of this irreducibility that even Dr. Bradley can discover are propositions of the form: "A and B coexist", "A and B are equal",[1] "A and B are synchronous", "C and D lie east and west".[2] Nothing could be more natural than to regard these statements as equivalent to propositions having for their subjects determinate plural individual terms such as *The conditions known as A and B, The quantities A and B, The events which appear in history as A and B, The positions in space indicated by the letters C and D.* Thus their reduction to (so called) "logical form" becomes not only possible but easy and obvious. The "torture" which Dr. Bradley so humanely deprecates is altogether uncalled-for.

We have already noticed above the use in ordinary discourse of determinate plural terms as subjects. Nothing is more common than such determinate plural special subject-terms as *The four kinds of Categorical Proposition* or such determinate plural individual subjects as *The days of this week, My parents, The wheels of my bicycle,* of which none can be regarded, from the standpoint of the ordinary classification, as either general or singular. Doubtless Parent (for instance) is a general term; but to regard the term *My parents* (or any of the other terms instanced) as applicable to "an indefinite number of individuals" (the usual criterion of generality) is obviously impossible.

How can the ordinary doctrine deal with such a proposition as *The Nine Muses are daughters of Mnemosyne?* Is it to regard it as an exponible equivalent to nine propositions each having the name (or number) of a Muse as its subject? And so natural and innocent a statement as the proposition "*My cat's paws are white*", which, from my point of view, is seen to be reducible to "strict logical form" by the addition to the predicate of the one word *things* (*i.e. individual objects*), would have to be regarded by the ordinary doctrine either as an exponible, expressing in abbreviative form the four propositions *The right front paw of my cat is a white object, The left front paw of my cat is a white object,* and so forth, or else as an illogically expressed statement which must be reduced thus: *The-group-of-objects-of-which-each-member-is-a-paw of-my-cat is a-group-of-white-objects.* Is this reduction to "logical form", or is it not rather a reductio ad absurdum?

Similar (though perhaps not always so obvious) absurdities attend the so-called "reduction to logical form" of all other propositions of which the subjects are plural proper names, plural determinate designations, or plural determinate special terms. As for such historic statements as

[1] See *The Principles of Logic* (Kegan Paul, Trench, & Co., 1883), p. 14.

[2] *Ibid.*, p. 23.

"*The Owl and the Oyster*
Were sharing a pie",[1]

the ordinary doctrine is at its wit's end to know how to deal with them. From the standpoint of the proposed new classification of terms they are seen to present no difficulty whatever. *The creatures known respectively as the Owl and the Oyster are individuals that were sharing a pie*, though it cannot rival the neatness and finish of the original, is at least an intelligible English sentence. But a logician who holds that all non-general terms are singular, and who sees that a general subject is in this case out of the question, must at all costs find either two singular subjects or else one singular subject for the logical form of the proposition. Either he must treat the given proposition as exponible and say that it is equivalent to the two statements:

{The Owl is a creature that was sharing a pie,
{The Oyster is a creature that was sharing a pie

(which would give the wholly erroneous impression that there were *two* pies, and probably two luncheon-parties over which the Owl and the Oyster severally and independently presided); or he must say that the proposition is equivalent to *The Owl is a creature that was sharing a pie with the Oyster* (which would give an invidious and altogether unwarranted precedence to the Owl, as if the pie belonged to him and the Oyster were dependent upon his beneficence); or else he must reduce the statement to logical form in this way: *The social gathering which consisted of the Owl and the Oyster is an object that was sharing a pie.* But this last "reduction" is evidently absurd since it was only the individual banqueters who "shared", while the gathering (if two *can* make a gathering) probably ate the *whole* pie, and certainly (so far as history relates) did not share it with any one else at all.

Now, a classification of Terms, and a theory of Proposition founded thereon, which find it impossible without landing themselves in manifest absurdities to deal with some of the simplest, commonest, and most natural forms of statement, are surely, to say the least, defective.

[Since writing the above I have heard that Mr. Joseph no longer holds the view that the distinction of Singular and General is applicable only to concrete terms.]

[1] *Alice's Adventures in Wonderland*, by "Lewis Carroll", First Edition, ch. x.

AUGUSTA KLEIN.

SOME FUNDAMENTALS OF LOGIC.

In her very fair and able review of my *New Logic*, Miss E. E. Constance Jones asks me several questions which it would be discourteous to leave unanswered. She asks me how, if qualitative terms, such as heavy, mortal, perfect, are destitute of extensive quantity, of denotation, we are to interpret the copula in *e.g. All men are mortal* . . . 'The only possibility seems to be that the *is* or *are* of the affirmative Categorical imports identity of denotation between Subject and Predicate'.

My reply is manifold. In the first place, I do not take extensive quantity to be the same thing as denotation. The difference is stated in my book, but the two definitions are given in different places, and they are not contrasted; Miss Jones has, not unnaturally in reading so large a book, overlooked the distinction. Extensive quantity is, in my view, applicable to, and possessed by, individuals and classes only, and only when they are contemplated as such, that is to say, in their quantitative aspect, as many or few, all or none, whole or part. Contrasted with this is intensive quantity, which is applicable to, and possessed by, qualities only, and by qualities not as individual things or classes, but in their qualitative aspect as qualifying things or classes. Classes and individuals may be all or none, many or few, whole or part, and when thus contemplated are contemplated quantitatively, and their quantity is extensive; but a quality, such as heavy, or mortal, or perfect, when contemplated qualitatively, that is to say, as qualifying an individual or a class, cannot be all or none, many or few, whole or part. It is insusceptible of these extensive quantities, and is susceptible of intensive quantity or degree only. We cannot speak of no heavy, or of many mortal, or of whole perfect, for these are extensive quantities applied to qualitative terms; but we can and do speak of very heavy, wholly mortal, nearly perfect, for these are intensive quantities or degrees, and as such are applicable to qualitative terms.

By the denotation of a quality I mean the concrete things that possess the quality, so that the denotations of the qualitative terms heavy, mortal, perfect, are respectively heavy things, mortal beings, perfect things.

The reason that the interpretation of the copula in *All men are mortal* is not immediately clear is that, in that proposition, the subject is an ambiguous term, the copula is an ambiguous verb, and the predicate, or as I should call it, the object, is an am-

biguous term. The subject is always written *All men*, but there is not the slightest doubt that the quantity is distributive quantity, and that in this, the model proposition of logic, logicians do not mean what they say, and do not say what they mean. *All men* in this proposition does not mean men collectively, it means men distributively, and the proper expression of the term is *Every man*. The predicate is similarly ambiguous. According to the unanimous teaching of logicians, the term mortal may mean *the quality of mortality*, or it may mean *the class of mortal beings*. Every logician admits that the term is ambiguous; every logician teaches that the term ought to be understood in the first sense; and every logician treats it as if it expressed the second sense. Miss Jones's question, how we are to interpret the copula, cannot be answered until it is decided in which sense the predicate is to be understood. If the predicate *mortal* is to be understood to mean *the quality of mortality*, then the copula is to be interpreted *possesses*, and the proposition should be *Every man possesses the quality of mortality*. If the predicate is to be interpreted *the class of mortal beings*, then the copula should be interpreted *is included in*, and the proposition should run *Every man is included in the class of mortal beings*. In the French expression *Quelques roses sont blanches*, the inflection of the adjective clearly points to the omission of an understood substantive, what is meant is *Quelques roses sont blanches* (*roses*). The inflection abolishes the ambiguity that exists in the uninflected English.

Thus I should disagree with Miss Jones when she says 'The only possibility seems to be, that the *is* or *are* of the affirmative Categorical [necessarily] imports identity of denotation between Subject and Predicate'. In my view, the denotation of subject and predicate may be identical or may not. The denotation neither of mortality nor of the class of mortal beings is the same as the denotation of All men or of Every man. The denotation of *quelques roses* however is the same as that of *blanches roses*.

Miss Jones states, quite correctly, my doctrine that the true structure of the proposition is not S is P or SP, but is S is related to P. The proposition never does and never can refer to one thing only, because a proposition expresses and asserts a relation, and to a relation two related things are necessary. Therefore, in my opinion, the generalised form of the proposition is not S is P, but S : P. If it were true that the only form of the proposition, or the generalised form of the proposition, is S is P, then we could never express any affirmative except in the form

> A is an Archer who shot at a frog.
> This is the house that Jack built.
> There were three logicians of Gotham.

Now as a matter of fact, but a small minority of our assertions are in this form. The great majority of our assertions are in the form

The pig won't get over the stile.
The dog ought to bite the pig.
The stick beats the dog.
The fire burned the stick.

None of these propositions can be reduced to the form S is P: none of them predicates an attribute of the subject, or asserts that the subject belongs to a class: every one of them is, however, an example of S : P.: every one asserts a relation between subject and object.

The pig—won't—get over the stile.

That expresses the relation of the pig towards getting over the stile.

The pig—won't get over—the stile.

That expresses the relation of the pig to the stile.

As most of our assertions, so most of our arguments, are conducted with propositions of this type. For instance:—

If The pig will not get over the stile unless the dog bites him,
and if The dog will not bite the pig;
then The pig will not get over the stile.

This is a perfectly valid argument, but it is not a 'logical' argument. None of the propositions is of the S is P type. None of them contains the copula. Every term is singular, and therefore none is distributed. There is no universal. One premiss contains three terms. If this illustration is considered beneath the dignity of the subject, it is easy to fill the same form with other matter.

If Mexico will not yield except to force
and No country will employ force against Mexico
then Mexico will not yield.

I do not see that any of these propositions affirms Identity of denotation with Difference of intension. There is no identity of denotation between the pig and the stile, nor between the dog and the pig, nor between the dog biting the pig and the pig getting over the stile; and though there is a clear difference between the intention of the pig not to get over the stile and the intention of the dog to make him do so, I do not think these intentions are what Miss Jones has in her mind when she speaks of intension.

What my chapter on the Ratio is mainly intended to bring out is that the several assumptions of logic with respect to the proposition are totally wrong, and transparently and manifestly wrong. It is not the case that the only verb employed in statement and argument is the verb 'to be'. It is not the case that every proposition predicates a quality (intension) of a thing (extension) or predicates that a thing belongs to a class. Logicians themselves, in their discussions upon logic, constantly make predications of other kinds, and intersperse these other predications

on the very page on which they state that predication is always predication of the quality a thing possesses, or of the class to which it belongs. Miss Jones, for instance, has, in her review, these propositions among others: 'Dr. Mercier *reproaches* received logic'. 'Dr. Mercier *does not seem to have observed*' so and so. 'We *could not say* A is unequal to B.' 'We *must recur* to the Aristotelian division.' 'He *commits* an error, 'Every term *has* two aspects' 'Locke *declares*' so and so. 'I *will illustrate* the kind of thing.' 'It *further provides* a place,' and so forth and so on. Not one of these propositions is of the type S is P. Every one of them can be reduced to S : P. Not one of them predicates an attribute of a subject, or the class to which a subject belongs. Not one of them asserts identity of denotation between the subject and the predicate, or as I should say, between the subject and object. Every one asserts a relation between subject and object.

It is well known in medicine that there are certain diseases known as 'occupation cramps'—kinds of spasm that afflict those only who pursue certain occupations, and that are due to the excessive exercise of certain groups of muscles. They are strictly confined to the persons who pursue these occupations, and afflict these persons only when they attempt to pursue these occupations, and at no other time. Such are writer's cramp, hammerman's cramp, and certain others. They seem to be brought on by the monotonous restriction of the use of certain groups of muscles to certain movements having little variety. Similarly, there are certain 'occupation amauroses'—forms of blindness that afflict those only who pursue certain occupations, and that are due to the excessive concentration of attention in certain directions. They are strictly confined to the persons who pursue these occupations, and afflict these persons only when they attempt to pursue these occupations, and at no other time. They are brought on by the monotonous restriction of the use of attention to certain subjects. Such 'occupation amauroses' are alienist's blindness and logician's blindness.

Alienist's blindness prevents the alienist from seeing that there is any form of disorder of conduct except getting drunk and assaulting the police. The disease, like writer's cramp, is strictly confined to those who pursue a certain occupation. No one in any other walk of life has even a momentary difficulty in recognising that prodigality, miserliness, suicide, lethargy, obstinate resistiveness, maniacal restlessness, and so forth, are disorders of conduct, but the alienist is prevented by his peculiar amaurosis from recognising them as such, plain and manifest as the recognition is to every one who is not an alienist. The same occupation amaurosis prevents him from discriminating between insanity and unsoundness of mind. Every one else can see that there are disorders of mind, such as giddiness and illusion, that are compatible with sanity and frequently occur in the sane, but his peculiar

amaurosis prevents the alienist from seeing this. Similarly, logicians suffer from an occupation blindness which is accountable for many of their beliefs, amongst others for the belief that a proposition constructed with any other verb than the verb 'to be' is not a proposition. No one in any other walk of life has even a momentary difficulty in recognising that *Mary had a little lamb* is as much a proposition, and as true and complete a proposition, as *Mary is quite contrary*. Every one but a logician can construct the one and argue with and about it as easily as the other. Every one but a logician knows that propositions constructed on the first of these models are used much more often in statement and argument than propositions constructed on the second. Nay, the extraordinary thing is that logicians themselves, in their very arguments based on the assumption that the second model is the only possible form of proposition, employ a copious abundance of the other propositions whose existence they deny. Logicians have no difficulty in seeing that there are other disorders of conduct than getting drunk and assaulting the police, and alienists have no difficulty in seeing that there are other propositions than those constructed with the verb 'to be'. The blindness is strictly limited to those of a certain occupation.

Its blindness to the existence of the forms of the vast majority of propositions is only one instance of the occupation amaurosis of the logician. He assures us that there is only one mode of reasoning, and that this mode is subject to certain inexorable rules, breach of any one of which vitiates the reasoning and leads inevitably to fallacy. Well, I have given in the *New Logic* innumerable instances of other modes of reasoning, which do not conform to the logical type, and are not syllogisms. No logician has ventured to deny that these are valid modes of reasoning, or to assert that they are syllogisms; but no logician has taken any notice of them, and I shall be very much surprised if the next edition of any text-book makes any reference to them. I have given an instance of an argument that breaks seven of the eight rules of the syllogism, and yet is perfectly valid, and no critic has ventured to dispute the validity of the argument; but still every logician teaches that the syllogism is the only form of argument. His peculiar amaurosis prevents him from seeing the others. There is not one doctrine of logic that I have not proved to be false by the production of unanswerable instances to the contrary, and no logician has ventured to dispute any one of these contrary instances; but no logician has modified any doctrine of logic.

When Miss Jones says that my analysis of the proposition All men (subject) are (ratio) mortal (object) is not an alternative to the accepted analysis All men (subject) are (copula) mortal (predicate), she is no doubt right. I should not put this particular proposition in this form, which, as I have already said, is ambiguous and confusing. But there are plenty of cases in which the verb 'to

be' may be legitimately used in the construction of a proposition. *The weather is fine* is such a proposition. I do not deny that S is P is a form of proposition, or that it may legitimately be used when it is appropriate. What I deny is first, that it is the universal and only form of all propositions, and second, that it is legitimate to use it when it is ambiguous. My view is that S is P is a species of which S : P is the genus. S : P is the common form of all propositions, and S is P is a particular case of S : P. S is P predicates a relation between S and P, but does not predicate the only possible relation between them. There are innumerable others—S is equal or unequal to P, S is before or after P, S beat P, killed him, cut him into bits, boiled him, ate him, was poisoned by him, vomited part of him, and died of the rest of him. All these are propositions. Every one of them can be disputed and argued about. Every one can be reduced to S : P: none of them can be reduced to S is P. I do not expect logicians to admit this. They are precluded by their peculiar amaurosis from recognising it, but to every one but a logician it is as plain as a pikestaff.

I do not therefore plead guilty to Miss Jones's indictment that I 'have not taken into account the very important difference between the relative type and the non-relative S is P type of proposition,' for I hold that the proposition always does and must express a relation, and therefore I deny altogether that there is such a thing as a non-relative type of proposition. The only propositions that do not on the face of them express relations are those made with intransitive verbs, such as Fire burns, Trees grow, Birds fly, The sun rises, and so forth. In these, as I have been at pains to explain in *A New Logic*, the relation is obscured by the expression, but the relation is there, and can easily be displayed. It is because I deny the existence of non-relative categoricals, not because I have neglected the propositions that are called non-relative, that non-relatives are not treated of in *A New Logic*.

Miss Jones asks me what general account can be given of Denial, of the import of negative propositions, on my view. She does not see that I give any general account of such propositions. I think I do. Chapter xi. opens with the statement that denial is denial of a relation, just as affirmation is affirmation of a relation, and in this and the following chapter I go on to discuss the different ways in which a relation may be denied. I discuss denial by negative ratio, denial by negative terms, the simple negative, the privative negative, the obverse, the exceptive negative, the exclusive negative, the infinite negative, significant denial, denial of quantities, denial of qualities, and in place of the single square of opposition of Traditional Logic, I give eight squares of opposition applicable to different quantities. I do not know what more general account of denial than this could be given, but if Miss Jones will indicate in what respect it is defective, I shall be happy to supply the omission.

It would be churlish to conclude these answers to Miss Constance Jones's questions without expressing to her my very sincere gratitude for the pains she has taken, and the time she has given up, out of a very busy life, to acquaint herself with views that I am sure must have been distasteful to her. She is the first person to take the New Logic seriously. She admits that I do direct attention to important defects of the Traditional Logic. She realises that my book is one to be reckoned with. This is a very unwonted attitude, and a wonderfully liberal-minded attitude for a logician to take. Hitherto, logicians have ignored the New Logic as completely as practical reasoners ignore them and all their works. Whoever heard in Parliament, in a Court of Law, on 'Change, at a company's meeting, in the pulpit, at a scientific society, or in any argumentative dissertation on any subject whatever, a syllogistic argument? Whoever heard any reasoner attempt to justify his position or assail that of his opponent by any of the devices of Traditional Logic? Whoever heard of a logician even in his most argumentative mood—even when he is reasoning about the syllogism itself—make use of the syllogism? In every other walk of life, we defer to the expert on matters within his own specialty, but whoever referred to a logician, or quoted a book on logic, to show that his arguments were valid?

Miss Jones is the first logician to recognise 'the narrow scope of syllogistic reasoning, the loss both to logic and to life which results from the frequent failure of logicians to exhibit their Science in vital relation to thought and conduct'. All honour to her, first for discerning this, and second for having the courage to make the admission. It is true that here and there a logician has timidly expressed a half-hearted doubt whether the syllogism does, after all, possess all the powers claimed for it, but no one, except in the New Logic, has ventured to put forward any other; no one has shown that any rule of the syllogism may be violated and yet the argument may be perfectly sound; no one has gathered together and exposed all the absurdities, futilities, and falsities of the Logic of Tradition. It may be that the tradition may live on in a little coterie, and that Logic will survive, as Judicial Astrology has survived, in spite of reason and in spite of ridicule, in spite of its proved falsity in theory and its proved uselessness in practice; it may be that a future historian may too hastily assume with respect to Traditional Logic, as I assumed with respect to Judicial Astrology, that it is utterly dead, and owns not a single surviving practitioner; and he may be astonished in his researches on the one subject, as I have been astonished in mine on the other, to find that, after all, there exists here and there a simple-minded fanatic, impervious alike to reason and ridicule, who accepts reverently any absurdity if only its author lived a long time ago. Logicians make a great pother about the stirring of the dry bones of Logic, and point to innumerable recent treatises on the subject as evidence that it is

still alive ; but so may a corpse be said to be alive when it supports life in countless lower organisms. The 'advances' and 'improvements' and 'discoveries' in Logic are, like Hamilton's quantification of the predicate, merely trifling variants of the old doctrines, and have as good a title to be considered revolutionary advances in the science of Logic as the substitution of wooden tallies for the abacus was a revolutionary advance in the science of mathematics. The few logicians who are acquainted with the New Logic look upon it much as theologians in the middle of the last century looked upon Darwinism, or as theologians before that regarded the works of Hume. They are horrified and alarmed and scandalised. They cry: This man blasphemeth! They refuse to examine it, lest their convictions should be unsettled. But they are in no danger of such a catastrophe; they have a sufficient safeguard in their occupation amaurosis. Few indeed of them have the candour, the openness of mind, or the courage of Miss Constance Jones.

CHARLES A. MERCIER.

PROF. ROSS ON ARISTOTLE'S SELF-REFUTATION.

While I am of course much obliged to Prof. G. R. T. Ross for the great pains he has taken[1] to set me right about Aristotle's apparent abandonment of the formal doctrine of opposition,[2] I have not been enabled so far to perceive the relevance of his reply to my difficulties, and as I do not know whether to ascribe this to my obtuseness or his obscurity and think that others may find themselves in a similar case, I venture to discuss the matter further.

It is gratifying to note, to begin with, that Prof. Ross does not appear to contest the essence of my case, *viz.* that when Aristotle comes to argue concretely (in the *Ethics*, etc.) he entirely ignores his formal logical doctrine that A and O propositions cannot be true together and maintains (as it seems to me, *rightly*) that there is nothing in the nature of a general principle that guarantees the validity of its application to any particular case. Prof. Ross asserts indeed that I am wrong in equating truth ἁπλῶς with truth καθόλου, but he does not attempt to show this. The only relevant passage he quotes from Aristotle (p. 397) supports me and goes to show that the latter also identified them. And even if he had not and if his argument did not lead irresistibly to the conclusion I ascribe to him, it would still be an open question whether in point of fact a distinction can be sustained between truths which are true in the abstract and truths which are true 'universally'. Prof. Ross therefore would have to establish the existence of the latter, and to show how his alleged 'universal' truths can escape from 'fallacies of Accident' so soon as any one tries to apply them. This again he makes no attempt to do. Nor does he attempt to throw any light on the incompatibilities between Aristotle's account of the 'fallacies' of *Accident* and *Secundum Quid* and his account of the Syllogism; he confines his strictures entirely to the passage I quoted from the *Topics*, ii. 11, as possibly containing the germs of the doctrine subsequently advocated in the *Ethics*. Now I am quite willing to learn that I was mistaken, and that the passage in the *Topics* does not really elucidate the subsequent developments, because its withdrawal would yet leave my case intact; but I do not find that Prof. Ross's exegesis of it is either convincing or even relevant to the question in dispute.

(1) I must point out that it was in the ἐνστάσεις, and not in the main contention, that I found the significant anticipations of

[1] In No. 91. [2] *Cf.* No. 89.

Aristotle's later developments. But I did not dispute that they were still rejected. The mere fact that they are called ἐνστάσεις renders it probable that at the time of writing Aristotle thought they could be refuted; but apparently he changed his mind about this.

(2) I had not to contend that Aristotle *was conscious of* the bearing of his discussion in the *Topics* on his formal doctrine of opposition; it is enough that a relation may be shown to exist between them. For it is clear that one cannot discuss changes in the valuation, and even falsifications, of general laws in consequence of the modifications necessitated by their application to cases, without raising the question of the relation of exceptions to rules. The fact therefore remains that if a rule fails to apply to a case, it can no longer be considered literally universal, and if it fails to apply for a reason inherent in the very act of application, no rule can any longer be regarded as indubitably applicable to every case.

(3) I cannot accept Prof. Ross's correction of my statement that "if a thing is true in some respect it may also be so in general".[1] It would perhaps have been more exact (though clumsier) to translate ἐνδέχεται by 'it is possible that it is' than by 'may be,' but it is essential to bring out the implied *contingency*, which Prof. Ross's translation obliterates. Aristotle could not mean that if A has the quality B under special circumstances, it *must* have it ἁπλῶς, but only that it *may*. On Prof. Ross's interpretation Aristotle is asserting either the triviality that if A in a special situation possesses the quality B it is capable of possessing it, or else the absurdity that if it possesses B in this situation it possesses it necessarily. But this is clearly false, and incompatible with the admissions that a rule which is true ἁπλῶς may become false under special circumstances, and that what is true under special circumstances may not be so in general. It clearly does not follow that because the water in a kettle boils now it boils always, or that because whisky does not intoxicate after a snake bite it never does so.

(4) Prof. Ross thinks that "the point to be established and the objections refuted in this passage are practically verbal" (p. 397), but he will hardly deny that in it Aristotle recognises a distinction between assertions which are true κατὰ πρόσθεσιν (but false ἁπλῶς) and those which are true ἁπλῶς, though he minimises its importance and tries to disagree with me about truth ἁπλῶς. What he does not appear to have observed is that if truth ἁπλῶς is taken to mean 'absolutely' or 'unconditionally' and to exclude falsity κατὰ πρόσθεσιν, the occurrence of such truth is just what I dispute and he has to establish, while if it is taken to admit that anything ἁπλῶς true may yet be κατὰ συμβεβηκὸς false, that is the very interpretation I am seeking to establish, and showing to have

[1] No. 89, p. 3.

been adopted by Aristotle himself in the *Ethics*. The mere interpretation is however less important than the consequence that inasmuch as all actual cases of 'truth,' whatever the principles they appeal to, are individual and fully equipped with a specific context, *i.e.* consist of assertions made under special circumstances, and as the abstract formula or rule is merely a potential assertion (or 'propositional function' in Mr. Russell's terminology), no principle or law can be presumed *a priori* to be valid in any particular application. Now this seems to me to be a conclusion not only of the greatest speculative interest, because it sweeps away the whole notion of '*a priori* proof,' but also of great historical interest, in view of the Aristotelian authority I have quoted for it.

For these reasons then I entirely fail to see how Prof. Ross can think that he has established his charge against me of 'miscomprehending' Aristotle. On the other hand he can easily be shown to have 'miscomprehended' me, and also to have committed himself to a number of indefensible assertions. And as he seems to be no less interested in this part of his paper than in Aristotelian exegesis, it will not be inappropriate to add a few comments on it also.

(1) I will remark first on the extreme precariousness of his belief in the existence of 'unconditional' truth and the logical weakness of his trust in mathematical 'self-evidence'.

(*a*) By 'mathematics' he means presumably *pure* mathematics to the exclusion of *applied*, and hopes by this naïve device to rule out the searching question 'What is the bearing of applied, on the truth of pure, mathematics?' and the dangerous suggestion that in the last resort the latter depend on the former for their meaning. But as the reasons for the preference accorded to Euclidean geometry and common arithmetic over other equally conceivable mathematical systems are manifestly to be found in the exigencies of application, this assumption of the independence of pure mathematics is clearly a signal example of *ignoratio elenchi*.

(*b*) It is further probable that by 'mathematics' Prof. Ross must mean common arithmetic to the exclusion of geometry, because the conditions on which the 'truth' of Euclidean geometry depends have now been rendered fairly clear even to the non-mathematical. But in the case of arithmetic also it is not difficult to detect the hypotheses which 'condition' the number-system.

(*c*) Lastly I would remind Prof. Ross that no one has a right to rely on so psychological a criterion as 'self-evidence,' without at least attempting to distinguish between true and false self-evidence and to discriminate his 'sane' intuitions from those of lunatics who are often far more certain of the strangest delusions than a reasonable man is of anything.

On the whole, therefore, I am tempted to reply to Prof. Ross's confession that he knows no *better* example of unconditional truth than mathematics that I can hardly imagine a *worse*.

(2) It may here be noted that Prof. Ross is quite mistaken in his analysis of the strange case of the tangent to which I referred. It is not true that the geometer has '*overlooked*' the tangent, when he declared that *every* line 'cuts' the circle in two points. In the sense which analytic geometry finds it convenient to give to 'cuts,' the tangent does 'cut' the circle. And this sense was developed long after the trigonometrical properties of the tangent were known. It involved an analogical extension of the original sense of cutting which is mathematically justifiable in the context in which it occurs. There is therefore neither negligence nor mystery about it, nor does it exemplify an inexact use of assertions "that are true only in the majority of cases" (p. 400). But what it does show is that no mathematical proposition can be unconditionally true; for there can be no absolute guarantee that its terms will not have their meaning altered and extended in the progress of mathematics, until their original meaning becomes paradoxical or false. And even where it does not, only one who believed that all relations were wholly rigid and 'external' could deny that the progress of any science must always modify even its old truths, by including them in a larger and more intelligible system, by providing them with further connexions, and by improving their formulation. It would seem, therefore, that Prof. Ross was rather hasty in declaring himself satisfied with the 'self-evidence' of mathematics as attesting its 'unconditional' truth.

(3) Prof. Ross is himself finally seized with doubts as to whether he has "comprehended the real nature of the new non-formal Logic," but excuses himself on the ground that, if he is wrong, I am to blame for describing "the nature of real thought only negatively, *i.e.* as being non-syllogistic" (p. 401). I can however assure him that this last idea also is part of his 'miscomprehension'. So is his supposition that I would "admit that the syllogism *intends* to employ major premisses which are unconditional and infallibly determine the particulars" (p. 399). He must have read my discussion of the syllogism to singularly little purpose, if he has really gathered either of these ideas from it, and not from his preconceptions about what a humanist logic must be like. I should never dream of arguing that 'the syllogism' needs unconditional premisses, though I am of course aware that the traditional interpretations have erroneously assumed this. Nor is there anything I have urged more strongly than that there is *no* escape from the fatal dilemma 'either a tautology or a *petitio*,' so long as the premisses of the syllogism are interpreted as 'unconditional,' *i.e.* as indisputable truths, and that to give any meaning to the syllogistic form the real reasoning which employs it *must* be understood as an *experiment*, and as relative to a doubt in some form or other (*cf. Formal Logic*, pp. 210-211). And this appears to me to be a *positive* result of great importance, although I can quite see how very unwelcome it must be to all the apriorist theories of Knowledge which it renders untenable.

(4) It is probably because he has so radically misunderstood my criticism of syllogistic theory that Prof. Ross thinks my own theory involves "the extraordinary doctrine that every determination of a particular subject is a condition of every assertion that can be made about it, *e.g.* that X's red hair was a condition of his weighing twelve stones!" All that is involved in it is, not that it (necessarily) *is*, but that it *may be* (for certain purposes). And that this contention is sound appears even from his own illustration. For if Prof. Ross's friend was like Esau and had plenty of red hair, he might easily win a bet that he weighed less than twelve stones by shaving all over!

(5) At the top of page 400 Prof. Ross makes the common mistake of supposing that pragmatists must relapse into an absolutist sense of 'true' and 'false,' when he attributes to me a belief "that it is unconditionally true that all Formal Logic is nonsense". But I can assure him that I hold this subject to correction and am quite willing, and even anxious, to listen to a defence of Formal Logic that will make sense of it, from him or any one else. And, if he will reflect for an instant, he will surely recognise (*a*) that it is quite unnecessary for me to burden myself with unconditional truths and quite enough to show that any truth I need holds so far, because no pragmatist ever wishes to assume that his formulations of truth are unimprovable; also (*b*) that in this case I have *actually stated the condition* which makes Formal Logic nonsense, and cannot therefore wish to believe that it is unconditionally nonsense. The condition is that Formal Logic expressly abstracts from meaning (*Formal Logic*, chap. xxiv. § 5-6); so long as any Logic does this and defines itself thereby, it will be nonsense, voluntarily and of its own accord, because it insists on being so. But it does not of course follow that there will always be logics which make this abstraction and conform to this definition, though I do not myself expect to see the last of them in my time. Nor can there be any guarantee that the term Formal Logic will not hereafter be used in a variety of other senses; it is unlikely to escape the common fate of philosophic technicalities, that no sooner has one philosopher made an attempt to render them precise than another comes and uses them in a different sense. I am painfully aware therefore that it is always possible that in the next philosophic treatise one takes up 'black' may mean 'white' and 'white' 'black' (*cf.* the history of 'subjective' and 'objective'), and one always therefore runs the risk of thinking it greater nonsense than it actually is. But at present I am not aware of any reason for thinking that such vagaries are conditioned by the colour of an author's hair (*cf.* p. 400); the point might well be investigated, though I do not suppose it has been. I should not select it as a subject of inquiry myself, because I happen to know of so many others which seem to me far more promising, and therefore prefer to run the risk of not discovering whatever

truths may lie in this direction; only the subject of bias and its causes has been so little investigated that it seems unnecessary to assert, dogmatically and *a priori*, that there can be no correlation between red-hairedness and the holding of certain doctrines. But if Prof. Ross would like to attempt this inquiry, and thinks it as attractive and useful as any other he can think of, I am the last person to stand in his way.

(6) In conclusion I am glad to note that Prof. Ross has despaired of finding "a formal difference between the true and the false" (p. 401). Let us hope that this will arouse him to the necessity of finding a real one!

F. C. S. SCHILLER.

DR. MERCIER AND THE LOGICIANS.

Into a contest with a logician I enter under a great disadvantage, for my ignorance, to which Mr. Shelton refers in such courteous terms, of the ways of traditional Logic, prevents me from following his arguments and from seeing their applicability. He says that when Dr. Schiller calls Logic a game, he has a definite meaning, and knows what he means, but when I say the same thing the assertion is foolish and meaningless. I do not put myself into competition with Dr. Schiller, and gratefully express my indebtedness to him for the suggestion that Logic is a game; but so far from having no meaning myself when I endorse his assertion, I explained in my last contribution to this discussion exactly what I do mean, and I will presently explain it again. In proof that I mean nothing when I say that traditional Logic is a game Mr. Shelton quotes three of my definitions of the terms used in my *New Logic*, and this is one instance of the serious disability under which I lie in not having had a logical training; for, for want of it, I cannot for the life of me understand how my definitions of the terms I use in the *New Logic* render meaningless my assertion that the old Logic is a game.

Mr. Shelton counters my assertion that inversion is invalid, and the old Logic useless, by the assertion that the style and manner of advertisement of my *New Logic* are quackery. This is indeed controversy, but to the non-logical mind it is not argument. I have not seen the advertisement to which Mr. Shelton refers, but I have every confidence in Mr. Heinemann, and I shall not believe that he has descended to quackery until I have some evidence; but granting for the sake of argument that my excellent publisher has advertised my book in an unseemly manner, I cannot see (not being a logician) how that renders inversion a valid inference or traditional Logic of any use.

The proof that Dr. Bosanquet is not playing a game of spoof is, according to Mr. Shelton, that my profession are (*sic*) spoofing the public and thereby putting public money in their pockets. Here again my deplorable ignorance of traditional logic prevents me from seeing any connexion between the premisses and the conclusion. Assuming that this is a syllogism, and according to the old Logic the syllogism is the only process of reasoning, I ask Mr. Shelton to be kind enough to point out the figure and the mood to which this syllogism belongs. I have a shrewd suspicion that his middle is undistributed or ambiguous, or that there is some other

vital fault in the argument; but as neither he nor any other logician ever puts his argument into syllogistic form, although, I repeat, the syllogism is the only known form of reasoning, it is impossible to say whether his middle is distributed at least once or not. Perhaps, however, this is an immediate inference, or an inference by complex conception. It would be much fairer to a critic if Mr. Shelton and other logicians would put in the margin or in brackets the exact figure and mood of the syllogisms they employ, or the particular immediate inference, as converse, obverse, contrapositive, or inverse, that they are using. It is scarcely fair to expect an ignoramus like myself to analyse their arguments without this assistance; and an accomplished logician like Mr. Shelton could surely do it, if I may be permitted to use the expression, on his head. I have puzzled for a week over the arguments in Mr. Shelton's paper, and I cannot bring them under Barbara, or Celarent, or any other of the recognised moods; yet some mood they must exemplify, for is not the syllogism the only mode of reasoning?

Mr. Shelton advises me to say that I do not agree with Dr. Bosanquet and to state my reasons. The advice is kindly, but it is uncalled for. I have already, in my *New Logic*, stated my disagreement with such of Dr. Bosanquet's statements as I can understand, and have given my reasons; but, not being a logician, I cannot say whether I agree or disagree with statements that I do not understand. To do so would be to take part in the game of spoof. Mr. Shelton admits that in Logic there is a considerable element of spoof, but he denies that the epithet applies to Dr. Bosanquet's contributions. I am not, however, without support for what I say. A writer in the *Quarterly* says of Dr. Bosanquet's contribution to Logic, 'logic in the ordinary sense of the word it certainly is not'. To say of what pretends to be logic that it is not logic comes very near to calling it spoof, and the writer who says this is Mr. Shelton.

Once more I will try to make clear my indictment against the old Logic. I say that Logic, as a science, should investigate, describe, and explain all the modes in which we reason; and as an art, should show how these reasoning processes are to be carried out in practice; and a very important subsidiary function of Logic is to inculcate clearness and precision of statement. My grievance against traditional Logic is that it has discovered but a very few, and these the least important and the seldomest used, of the modes by which we reason and argue; that as to these it is mostly wrong; that logicians themselves do not employ these modes in reasoning or in argument,; that the study of traditional logic does not conduce to cogency of argument, and in support of this statement I adduce the example of Mr. Shelton; and that neither Logic nor its professors pay any attention at all to clearness or precision of statement, and in support of this I adduce the ex-

ample of Dr. Bosanquet. If we may judge the tree by its fruits, and traditional Logic by the achievements of its professors, its tendency is to deprive them of the faculty of stating their ideas intelligibly, and of conducting their arguments logically. My claim for the New Logic is that it cultfvates the whole extensive field of Logic, including the tiny corner tilled to such little purpose by traditional Logic, and explains all the reasoning processes that are actually in use.

The reason I call traditional Logic a game—my meaning when I call it a game,—is this :—when we do a thing in order to achieve a useful result, in order to make something that shall be of use when made, we are certainly not playing a game ; but when we do a thing for the fun of doing it, or to display our skill in doing it, or for our interest in doing it, regardless of the usefulness or otherwise of the product, then we are playing a game. The test by which we may know whether or not we are playing a game lies in the question, Are we doing it for its utility, or merely for our interest in doing it and to display our skill? I say that whoever performs the processes of traditional Logic does so for the sake of doing them, and not for any useful purpose that results from doing them ; and in proof of what I say I point to the fact that no practical reasoner in real life ever uses any of the processes of traditional Logic, and that even logicians themselves never use any one of the modes of reasoning that they teach. Is it conceivable that this discussion on the validity of inversion could ever have taken place if inversion were in common use by practical reasoners to arrive at results? Is it not manifest that whoever uses inversion uses it for the intrinsic interest of using it, and not for any end to be attained by using it? He who constructs a syllogism according to rule, refers it to its proper figure and mood, sees that its middle is distributed at least once, and is not ambiguous, that both its premisses are not particular, and so forth, is not in the least concerned about the conclusion he reaches, except to see that it conforms to rule. He does not go through his labours to discover that Socrates is mortal, or that Iron is a useful metal, or that Birds are not viviparous. He does it for the sake of doing it, and to show that he can do a difficult thing without making a mistake, like the juggler who keeps half-a-dozen knives in the air at once, or the perpetrator of a jig-saw puzzle. This, I say, is playing a game, pure and simple. On the other hand, he who executes the processes described in my *New Logic* does them, not for the sake of doing them, but for the results to be obtained by means of them, and this is why the New Logic is not a game. By the old Logic we arrive at the conclusions that Socrates is mortal, that Iron is a useful metal, and so forth : by the New Logic we solve the problems, Where is my hat? What is the best manure for turnips? Is this investment safe? Who stole the bacon? If the syllogism is the sole mode of reasoning, why do logicians never use it? If a

logician cannot argue, what is the use of Logic? When we attempt to answer these questions by reasoning processes we do so not to exercise and exhibit our skill in doing them, but to attain by their means a useful result. We want the conclusion for its own value in our lives, and not merely as a bit of a jig-saw puzzle, of no use except to fit into its place, and to exercise our skill in fitting it. This is the difference between the game of traditional Logic and the practical art of the New Logic. Mr. Shelton says this explanation is foolish and meaningless. It may be so—to a logician.

CHARLES A. MERCIER.

Postscript.—In his *Quarterly Review* article Mr. Shelton formally surrenders the universality of the syllogism—'It is incorrect,' he says 'to say, that we always or necessarily reason in syllogisms.' So far so good. But does Mr. Shelton suppose that, now he has capitulated at Ulm, he can save Vienna? He tries to secure the honours of war by asserting 'It is correct to say that we can always, if we wish, express valid reasoning syllogistically'. Can we? Then perhaps Mr. Shelton will express the argument *à fortiori* syllogistically.

C. A. M.

DR. MERCIER AND FORMAL LOGIC.

I HAVE no desire to intervene in the quarrel Mr. Shelton has picked with Dr. Mercier,[1] though he seems to me to have quite failed to appreciate the latter's banter and to have made some very damaging admissions which go far to justify it; for I am sure Dr. Mercier is well able to take care of himself. But I should like to thank Mr. Shelton for stating so correctly and clearly the ground of my own objection of Formal Logic, and at the same time to dispute his denial to Dr. Mercier of the right to denounce Formal Logic as a silly game.

Mr. Shelton is quite right in thinking that when I call Formal Logic a game, the meaning of the charge is quite specific, and also that it must mean something different to Dr. Mercier and to me, because from my standpoint Dr. Mercier's Logic is also Formal, and also a 'game'. But it by no means follows that Dr. Mercier has no right to complain of the traditional 'logic'. Surely he is fully entitled to object that the traditional logic is a *bad* game and that his 'new' logic makes a better one, and to make out a case for his contention. Indeed on the whole I am not indisposed (provisionally) to endorse his claim. For my own investigations of traditional logic lead irresistibly to the conclusion that it is essentially an equivocation between psychology and verbality; and that nearly all of its doctrines may be construed in either way. It has in consequence always an escape from criticism. If its psychologism is attacked, it can always point out that the verbal meaning is not a fact in any one's mind; if its verbalism is condemned, it can always claim to refer to actual thinking and deplore the deficiencies and ambiguities of language. Consequently the only way to force it to render an account of itself is to stop up *both* its earths, and to attack its verbalism and its psychologism simultaneously.

Now this is, I take it, the interest of the present situation. The traditional Formal Logic can only escape from my criticism by becoming wholly verbal and confessing that its so-called 'logical analysis' is neither psychological nor scientific, and deals merely with the 'dictionary-meanings' of words; but if it does this, it rushes straight into the jaws of Dr. Mercier, who (very reasonably) wants to know why, if so, it has chosen to recognise a few only of the familiar forms and usages of speech and of the inferences they seem to warrant. To have concretely and fully illus-

[1] In No. 91.

trated this side of the deadly dilemma in which the traditional 'logic' is caught seems to me a great service which Dr. Mercier has done to logic, and one quite comparable with that of the symbolic logicians who are trying to render traditional logic consistent in their way, by asking why, if logic believes in *fixing* meanings, it does not do this thoroughly and is unwilling to become wholly symbolic.

The different sorts of logical reformers, therefore, however much they may differ among themselves, can all agree that the traditional logic is indefensible and a disgrace to science, and support each other's questions. The humanists ask 'why, if you profess to deal with actual thinking, do you ignore the actual meaning of thinkers?' the symbolists ask 'why, if you aim at exactness, do you refuse to use symbols only?' and Dr. Mercier asks 'why, if you aim at analysing the use of language, do you restrict yourselves to a few phrases only?' And all three can agree that in view of the actual condition of 'logic' all these questions are justifiable—and unanswerable.

F. C. S. Schiller.

VI.—CRITICAL NOTICES.

A Manual of Psychology. By G. F. Stout, M.A., LL.D., F.B.A., Professor of Logic and Metaphysics in St. Andrews University. Third edition, revised and enlarged. London, 1913, 8vo. Pp. xvii, 769.

Ever since its first appearance in 1898, Dr. Stout's *Manual* has been, I suppose, the text-book of psychology most widely used in the Universities of this country; and teachers of the subject would generally admit that, subject to one important proviso, it has been by far the best text-book to put into students' hands. The proviso was that students had sufficient intelligence to be able to make use of it. For it was, one must confess, a mighty difficult book, and apt to leave the weaker sort agape.

The first obvious comment to make upon this new edition is that it is a far better text-book. Many of the chapters have been rewritten: most of them have been more or less altered; and nearly all the changes make for simplicity and comprehensibility. Moreover, two new and much-needed chapters have been added. Probably many have felt that there were three topics which, though not entirely neglected in the earlier editions of the *Manual*, did not receive the formal recognition that they deserve,—namely, Attention, Desire, and Instinct. Desire may still account herself somewhat injured; but the chapters on Attention and Instinct are full and admirably lucid. In consequence of these additions something, no doubt, had to be sacrificed, and so the chapter on Faculty Psychology and Associationism has gone. I lament its disappearance: associationism commends itself so easily at first to every true Briton that Dr. Stout's criticism of it had more than merely historical applicability. Would that he had retained it, and persuaded the publishers to divide the bulky volume into two again!

So much for the utility and convenience of the new edition considered merely as a text-book. But many of the alterations have great intrinsic importance. Most fundamental are those which concern immediate experience and perception of the external world, but before discussing them I will mention a few other notable changes.

In the Introduction, chapter i., Dr. Stout objects (and surely with justice) to the saying that "Psychology is not the science of mind, but only of mental processes or states". "The only possible point

of departure lies in the definition of a mind as a conscious individual," and no one "can deal with mental processes or states without reference to their being the processes or states of some conscious individual, some "I" or "self".

In chapter ii., apart from changes necessitated by the doctrine of "immediate experience," there need be noted only the introduction of new sections on pre-scientific psychology, which should save the beginner from the depressing feeling that he has wandered into regions hitherto quite strange to him.

Chapter iii., on Body and Mind, has been entirely re-written and nearly doubled in length. The revision of the strictly physiological part of the chapter results in pure gain to the reader; in the more speculative part, however, Dr. Stout has been too Quixotic. He has evidently been greatly impressed by Dr. McDougall's advocacy of interactionism, and though he tells us in a note to the Preface that personally he still adheres to Parallelism, he has set out the objections to the latter theory in such fullness and has so roundly called it "brutally empirical" and other such cruel names, that the ingenuous student will never think twice of it. He admits finally that the difficulties can be solved only by "bold metaphysical speculation"; but whereas in the second edition he gave us a taste of this, he has now withdrawn the ontological discussion, as those who recall his article in MIND, vol. xx., would expect, and he ends rather abruptly by saying that it ought to make "no essential difference" to us as psychologists which of the two views we accept. That seems to me to be strictly true; and I conclude that the proper place for the discussion is in a Manual of Metaphysics, not in a Manual of Psychology.

The *Groundwork* prepared us for a renewed defection from the ordinary threefold division of conscious processes, but in fact Dr. Stout is unexpectedly orthodox. He now heads the discussion, "Ultimate modes of the relation of the conscious subject to its object," and the phrase is better than the previous "Ultimate modes of being conscious". He then tells us at once that the fundamental modes of the relation are three—cognitive, active, and affective. The cognitive attitude involves either judgment or doubt or mere supposition—though, it is added, doubt and supposition presuppose and involve judgment (belief). The feeling attitude is still so described as to exclude the possibility of 'neutral' feelings, but the argument against their occurrence convinces me as little as ever, and would, I venture to suggest, convince no one who is at once introspective and phlegmatic. The conative attitude is kept more distinct from that of feeling than in the *Groundwork*, though, of course, their intimate connexion with one another is emphasised. But these are all 'modes' of the general relation of subject to object, and Dr. Stout proposes to call that relation itself 'Simple Apprehension'. I cannot think this use of the name convenient, nor does Dr. Stout's discussion of the

matter seem to me altogether clear. It might be argued, he says, that Simple Apprehension falls under Cognition, and *if* anything actual corresponds to the term as ordinarily used, that is surely where it would fall. But clearly the general relation of subject and object cannot fall under one of its own modes. Dr. Stout, however, instead of repelling the suggestion by merely emphasising his use of the name, argues that Simple Apprehension cannot fall under cognition because cognition always involves judgment, doubt, or supposition. But what place is there for this distinction in the perceptions of, say, an infant or a cat? Further, Dr. Stout illustrates the distinction between Simple Apprehension and Cognition thus: "Let the object before the mind be what is meant by the words 'that the moon is made of green cheese' or 'the moon's being made of green cheese'. Simple Apprehension requires only that the meaning of the words be understood. But besides this there is always belief, disbelief, doubt, or supposal." Here he may seem to be using the term "Simple Apprehension" more nearly in its traditional sense. But surely understanding the meaning of the words is a very different thing from the *general* relation of subject to object; a word can be understood only because it has become a signal for judgments. What is meant, I take it, is that we may abstract from concrete attitudes of judgment, etc., the mere having an object before the mind, and call this apprehension simply, but that it is an abstraction and we never do apprehend an object and nothing more. True, but the difficulty about perception (and imaging) remains. Moreover, simple apprehension is to be the name for the general relation of which feeling and conation, as well as cognition, are special modes. But is feeling always an attitude towards an object at all? And when it is, does it not presuppose cognition of the object? And if so, will not the simple apprehension be relative primarily to cognition and only indirectly to feeling? I feel sure that my difficulties are due to misunderstanding, but the exposition is not very clear.

The new chapter on Attention is excellent. It includes among other things the discussion of Conative Unity and Continuity, formerly in another chapter. The lucid treatment of marginal awareness and of subconscious sensations is specially noteworthy.

In the chapter on Primary Laws of Mental Process the old sections on Relativity and on General Unity and Continuity have been omitted, whilst the third and fourth sections have been transferred, as just mentioned. Some changes of terminology have been introduced to fit in with the new exposition of the primary meaning of sensations; thus what was called "primary meaning" in the old edition is now called "primarily acquired meaning," and what was called "acquired meaning" is now called "reproduced meaning". New sections have been added under the titles "Retention involves Retention of Presentations" and "Explicit ideas which are not free," and the discussion of motor

association has been much altered and extended. Several points in this chapter will be mentioned later on; it might be noted here, however, that to speak of retention either of presentations or of objects that are not presentations is misleading and obscures the superiority of the doctrine of dispositions over the old conception of memory as a store-house. But on the whole this is one of the chapters that have gained most by re-writing.

Passing on to the second Book, on Sensation, and leaving aside for the moment the chapter on General Characteristics, we find the discussion of the Sensation-Reflex much (I think over-much) abbreviated, and § 1 of the old chapter iii. greatly developed and improved (as § 2 of chap. ii.) under the heading "Perceptual Value of Sense-experience". The treatment of the various kinds of sensations has been brought up to date, the most important alterations, of course, being due to the researches of Dr. Head and his collaborators.

Book iii., part i., on "Perceptual process in general" opens with the new chapter on Instinct, in which Dr. Stout develops the view which he put forward in the *British Journal of Psychology.* The genus of instinctive behaviour being that it rests on connate endowment, what differentiates it from other kinds of congenitally determined processes? The purely biological view of instinct fails to distinguish it from other kinds of vital adaptation. On Dr. Stout's view the differentia consists in this, that instinctive behaviour from the first involves "the co-operation of intelligent consciousness". Its guidance by complex and changing groups of sense-impressions, its outward manifestations in bodily attitude, its persistency with varied effort, and its modification by experience, all combine to show that it is attentive process and involves "an impulse which requires for its satisfaction the doing of something in the sense of achieving a certain perceptible result". Intelligence is involved from the first. What appears to be interest is observable from the first, and were there not originally attention and continuity of interest, how could those dispositions be formed which are necessary to learning by experience? Past experience, no doubt, "is a contributory factor in the first performance of all instinctive actions except the very earliest"; but even the very earliest, though of course they do not include clear prevision of the end, involve throughout an awareness of each moment of the process as transitional to something yet to be. An abstract does not do justice to this brilliant, and to my mind convincing, argumentation. On the other hand, I think that Dr. McDougall's view of the interrelation of instinctive process and emotion deserves fuller consideration than it receives. It is just touched on in one passage (p. 355), but the old chapter on Emotions, which except for some abbreviations is, like the chapter on pleasure-pain, practically unaltered, is not brought into any definite relation to the discussion of Instinct.

I turn now to the most important changes in this new edition,

which concern sensation and apprehension of the external world. In face of the criticisms brought to bear on his previous account of spatial perception and the like, Dr. Stout has reverted, as he said he would, to a position mainly the same as that which he defended in the *Analytic Psychology;* and whether his present exposition satisfies his critics or not, they must at any rate allow that it is far more clear of verbal ambiguities and far more easy to follow. But in the interests of psychology itself I wish that he had added a final chapter on the limits of psychology. What is commonly known in this country as the Oxford view of psychology —that it consists of unintelligent answers to unintelligible questions —is mainly the exaggerated expression of a belief that psychologists are forgetful or even unconscious of the presuppositions and limitations of their study; and this belief is not without occasional justification. No one is better able than Dr. Stout to dispel misconceptions that are rapidly becoming wearisome; and even as a text-book the *Manual* would be improved by a chapter that warned the student away from the dangerous booby-traps of uncritical 'Psychologismus'.

Dr. Stout's new formulation of his doctrine agrees with what he has already written in several scattered articles and papers, to some of which it will occasionally be necessary to refer. With regard to several difficulties that occurred to me I have had the advantage of some correspondence with Dr. Stout, of which I shall make use to elucidate points in his meaning that to me at any rate seemed uncertain.

The most striking point in the doctrine is, of course, that thought, with the categories of thought, is involved in all perception. Sensations perform a function which I may, perhaps, call notificant; they are mental, but they make us apprehend, or (if that phrase implies transition in time) they always mean or carry with them the thought of, objects which are not mental (or at any rate not my-mental); but they can perform this function only because of a necessity lying in the mind's own nature to think in certain ways. This activity of thought is stimulated and has its 'cue' given it by sensation, but it is not itself a sensory process, and even perception therefore is much more than sensory. I think that this has always been Dr. Stout's meaning, but he expresses it much more clearly than in previous editions of the *Manual.*

Having explained what is meant by the psychological or subjective point of view, he raises the question in what way psychology is concerned with objects, and so introduces us at once to the notion of "immediate experience". Whether one likes the name or not the meaning is clear. Psychology studies the states and acts of a conscious subject. These are all subjective in the sense that they are dependent on and parts of the life-history of an individual mind which lives through them; but in another sense

some of them are objective, being constituents of complex apprehended objects. Such objective immediate experiences are called Presentations, and it is necessary to bear in mind throughout that this term is no longer used in the sense given to it in previous editions of the *Manual.* There are three species of presentations, Sensations, Images, and an imageless, amorphous type found in trains of thought. The objects of a conscious subject, then, will be divided into those that are presentations, and those that do not depend for their being on their relation to that subject: the former are studied by psychology for their own sake; the latter are data of psychology in so far as reference to them is necessary in giving an account of immediate experiences.

But originally our awareness of objects that are not presentations is conditioned by presentations. Thus "in being aware of a pressure-sensation we also are cognisant of something which presses. . . . The apprehension of immediate experiences in the way of sensation carries with it the apprehension of objects which are not immediately experienced—objects which are thought of as having a being independently of what passes in our mind in the moment of our becoming cognisant of them." This point is emphasised again and again. "It is through sensation that we become in the first instance conversant with external objects and their qualities; and this takes place in such a way that the apprehension of resemblances, differences, successions and co-existences in the external world is essentially conditioned by the apprehension of resemblances, differences, successions and coexistences of sensations." "The mind is dependent on immediate experiences for the cues which at any moment determine the direction of thought to objects which are not immediate experiences." "The simplest datum of sense-perception from which the cognition of an external world can develop consists, not merely in a sensuous presentation, but in a sensuous presentation apprehended as conditioned by something other than itself." Hence "we can never have absolutely pure sensation, sensation absolutely devoid of meaning either original or acquired".

Perception then is of a complex object, which need not be and is not usually analysed, but which, if it be analysed, reveals itself as partly mental and partly non-mental. The first consequence of this doctrine is the paradox that what have often been called sensible qualities are never "sensed". Yet, were we blind, I doubt whether this would strike us as a paradox at all. When I touch a table and say it is hard, or a file and say it feels rough, I do not attribute my cutaneous sensations to the table or the file; the sensations are mine and mine only, but the sensible qualities of hardness or roughness belong to the things. Similarly when I say that the water feels hot, I do not mean that it feels the temperature-sensations which I feel; nor is the sweetness of the sugar the taste that I enjoy. In all these instances, as soon as we begin

to analyse,[1] we do in point of fact distinguish between the sensation and the "sensible quality," and, as Reid said, they are unlike one another. We do not regard the sensations as qualities of any material thing. No doubt we have come to localise them up and down our bodies, and this fact of localisation seems to me to raise difficulties; but at any rate we do not regard them as qualities or characters of our bodies. These touch sensations do not belong to my fingers as length or roughness of the skin does; even this pain does not belong to my tooth as the hole in it does. Much the same is true of smelling and, I think, of hearing. We should if pressed distinguish between sound-sensations and objective sonority, though our ingenuous analysis is apt to falter here, firstly because we do not (apart from scientific theories) make up our minds what it is that is sonorous, and secondly because we tend to localise sounds outside of our bodies. We do this, however, in a curiously uncertain manner, and can easily abstain from doing so; and then we hear all sounds in our ears or our heads, but again not as qualities of the body, but as ours in our ears or heads. So long, then, as we leave vision out of account, the distinction between our sensation and the sensible quality seems clear, and equally that both are apprehended in perception, the sensation making us to apprehend the quality. The distinction and connexion of the two are indicated by the perceptual reaction. When the philosopher walks into his unlit study meditating on the heresies of psychology, and suddenly knocks his leg against the table, he first withdraws his leg from the table and then kicks the table, not because the table feels the pain, but because he does and it doesn't (but ought to). He reacts, that is, not merely or mainly to his sensation, but to the thing.

In vision, however, the distinction is not so obvious. When I touch the table, any one would say, I (1) have certain sensations, and (2) perceive the table's hardness; but it is very likely that the same person would not allow that when he sees the table he (1) has certain visual sensations, and (2) perceives the brownness. He would say simply that he sees brown. If he has a visual sensation or immediate experience of brown distinct from the brownness which he attributes to the table, he does not notice it. If you bid him distinguish between brown as an event in his life-history and the table's brownness, he will very likely confess himself unable to do so, though he will readily distinguish between his perceiving the brown table and the table's brownness. If you say to him: "But take an analogous case. This water feels cool to me, but to you who are cool it will seem warm. Similarly the

[1] As to our meaning before we begin to analyse, I agree with what Dr. Stout says in the *Proc. of the Aristotelian Society*, N.S., iv., 143. But I do not agree with him when he says (vol. ix., p. 232) that the difficulty of distinguishing between presentation and perceived objective quality begins when we pass from organic sensations to those of special sense. I think that it begins with vision.

table which looks brown to you looks another colour to me," he may reply: "The cases are not analogous. You have certain temperature sensations and I have dissimilar ones; we can notice them if we try. The water doesn't have them at all. The warmth or coolness that we attribute to the water is something different from them. But the colour I attribute to the table is indistinguishable from what I suppose my immediate experience would be if only I could, as you bid me, find the immediate experience. Of course I admit that what colour I see may depend partly on possibly abnormal personal conditions, and I may discover by means other than present vision that the table is not brown, just as I may discover that the water is not warm. But I am not concerned with the question whether the table is really brown, or has really any colour: I am simply hunting for an immediate experience which you tell me I have but I cannot discover."

A difficulty of much the same kind arises with regard to extensity, and I therefore pass on at once to the doctrine of immediate experience in its relation to that of spatial perception. Dr. Stout has modified his exposition in many details, which cannot be discussed in this notice, and I must confine myself to a few of the more important points. In general the position defended is the same as before. The psychological problem is "to inquire how spatial perception develops from vague and imperfect to more definite and perfect forms". I think that this is the real, and only, problem for psychology. It is the only problem, because in the end we have to come back upon the fact which neither can receive nor perhaps requires further explanation, that an intelligent soul is able to perceive a spatial world. It is a real problem, because the soul is not at all times equally intelligent but in the course of this life gradually comes to perceive a spatial world better, so that we may fairly ask under what conditions this improvement takes place. No doubt the problem is not real if we assume that all through life the soul is equally intelligent, or that though it grows in intelligence its growth depends on no assignable conditions or on totally different conditions in different people. But it is difficult to find arguments in favour of any of these suppositions. I think that in his articles on the subject, in many ways so admirable, Mr. Joseph really implied that the soul is at all times equally intelligent; but greatly as I admire his intelligence, I cannot believe that it was really as developed when he was in his cradle as it is now, or that he really thinks so. But when Mr. Joseph writes: 'I still think that "to be is one thing, to be perceived is another," and that when I perceive, I perceive something in space, existing independently of its being perceived,' I find Dr. Stout in complete agreement with him, except for the reservation that "immediate experiences" exist only in being perceived. And this reservation, as we have seen, does not mean that we first have merely immediate experiences and then somehow pass on to perception of

things, but that concrete perception is both of immediate experiences and of things.

Dr. Stout's solution of the genetic problem is, shortly, that the definite apprehension of an order of spatial co-existence "arises and develops only in connexion with that peculiar aspect of sense-experience . . . called extensity, and more especially the extensity of sight and touch," such extensity being "a local sign *continuum*". But as mere extensity can only yield a vague apprehension of extension, and cannot by itself supply all the conditions of the perception of definite position, distance, direction and shape, we must have recourse to another factor, *viz.*: "experiences in the way of movement". These latter, Dr. Stout is now careful to divide into (*a*) motion presentations, a peculiar kind of immediate change-experience, and (*b*) motor-sensations which accompany the varying positions of the limbs. The detailed working out of this view remains in essence the same as in previous editions, though the greater part of the chapter has been re-written, the passages on localisation and projection in particular being greatly expanded, and many ambiguities of diction removed. Attention can here be called only to two of the most important points.

(1) Dr. Stout now affirms more clearly than before that the category of spatial unity is operative from the first and throughout. That is to say, when our immediate experience of extensity makes us apprehend a thing as extended, as it always does, "this extension is not thought as self-complete and self-contained, but as continued beyond itself," even an apprehension of a third discussion being from the outset involved in the apprehension of surfaces.

(2) Were it not a necessity for the mind in having immediate experiences to think of their conditions, did not sensuous presentations in a primary (and not acquired) way mean something beyond themselves, then the growing complexity of the relational order of sense-experience could never carry with it an improvement in our apprehension of the relational order of the conditions of our sense-experience. For example, "the continuous shifting of the local signs" in active exploration of the surface of a body, and the gradual change of presentations, would result only in an apprehension of a temporal sequence of sense-impressions.

The difficulties that have worried me, and probably other readers, concerning Dr. Stout's account of spatial perception do not lie in the details so much as in the conception of an immediate extensity-experience itself. In determining what exactly is meant by the term I shall make free use of certain elucidatory remarks which Dr. Stout has kindly sent to me.

(1) It is not an immediately apprehended quantity which, while admitting moreness and lessness and including internal diversities that act as local signs, is not only non-intensive but also non-extensive. So much is clear.

But (2) it is not an awareness of extent. Awareness of extensity

is an awareness of the extent of sense-presentation, but the extensity-experience itself rather, so Dr. Stout writes to me, "*is* extent, just as a feeling of pain actually *is* pain and not merely the perception of pain. When we perceive a sensation as extensive, the extensive character really belongs to the sensation."

(3) Being a character of sensation, it is not to be confused with the apparent or, as it would often be called, the perceived extension of the object as distinct from what for reasons beyond the present perception we have reason to believe to be the "real" extension of the object. The apparent size of an object usually depends on other conditions besides the extensity of the sensation, though no doubt the two are not as a rule explicitly distinguished. Extensity, then, is extension, not as thought, but as immediately experienced, and without the extensity-experience extension would not be thought. Now the difficulty recurs that was mentioned in connexion with colour: can we in direct analysis of the single percept distinguish the alleged immediate experience from the objective extension perceived? It may be argued that all the examples given of awareness of tactual extensity are perceptions of this or that tract of the body, indifferently well delimited; and similarly that awareness of visual extensity is, at any rate for direct analysis, not only inseparable but indistinguishable from awareness of objective extension. We may draw at least three different, though not altogether unconnected, distinctions: (1) between the characters which the object "really" has independently of being perceived, and its perceived characters, (2) between its characters as perceived under whatever we choose to call "normal" conditions (often also called its "real" characters), and its characters as perceived now under these conditions which differ more or less from the normal; (3) between the characters of the object as perceived now under these conditions and our sensations or immediate experiences. The first of these distinctions is not psychological at all. The second sets a psychological problem applying to all perception. The third can easily be reached by direct analysis of most kinds of sense-perception, but can it be thus reached as regards vision or in respect of extension and extensity, whether tactual or visual? Can one distinguish between colour or extensity as immediate experiences and the corresponding characters of the object as apprehended in the same perception? When, for example, after giving some examples of tactual extensity, Dr. Stout concludes: "Doubtless the awareness of extensity, whether crude or articulate, is inseparable from some awareness of extension, correspondingly crude or articulate," may we not reply that in any particular percept they are not merely inseparable, but indistinguishable, or if distinguishable at all, distinguishable only by an indirect argument?

I do not think that the difficulty is any greater for extensity than for colour. Now if we deny the possibility of the direct

analysis in respect of colour, we shall have either to deny that there are visual sensations comparable to other kinds of sensations or to rest the whole weight of the distinction between visual sensations and corresponding sensible qualities on an indirect argument. The former alternative is attractive, but clearly in the end untenable; if we try to adopt the latter alternative, it is difficult to see, as Dr. Stout points out to me, how we ever come by the indirect argument. If we are incapable of the direct analysis of our visual percepts, we must in each percept identify the sensation and its variations with a quality of the thing and its variations, and we could never have reached the thought of an objective quality distinct from the visual presentations. Thus it is probably a mistaken confession of incapacity if any one believes himself, as for a long time I believed myself, incapable of making the direct analy is. No doubt it is less easily made in vision than in any other mode of sense-perception, chiefly because the meaning of visual sensations is so much more interesting than the sensations themselves. The successful performance of the analysis is, I am now convinced, mainly a matter of practice, though I am still far from being able to say with Dr. Stout that "I find it at least as easy to recognise visual sensations as such as any other class of sense-experiences, except perhaps the organic".

Tactual extensity is fairly easy to distinguish from the extension of either the thing touched or the touching surface of the body, when once attention is rightly set. In vision the analysis is certainly difficult, and I used to think it, at any rate for myself, impossible. It will be of service to readers of the *Manual* if, with Dr. Stout's permission, I quote some observations of his on this point. "The sheet of paper before me is perceived as very much smaller than the more distant door. But if with one eye closed—the closing of one eye is convenient but not necessary—I interpose the paper between the other eye and the door by holding it out at arm's length, I become aware that the extent of the visual presentation of the paper is greater than that of the door. I am not confusing the fact that the paper intercepts the vision of the door with the result of a real comparison of visual magnitudes. The extent of the visual apparition of the paper is not increased; and what I become aware of is that it occupies a portion of the field of visual sensation larger than that which was previously occupied by that of the door which has now disappeared. I can obtain the same result by merely thinking of interposing the paper without actually doing so. Nay, even without this mental experiment, I often succeed, probably as the result of practice, in directly comparing the relative extent of visual presentations (as contrasted with the relative extent which for perception appears to belong to things seen)." For my own part, I have tried this and a number of similar self-observations, and find myself succeeding with slowly increasing facility. This is a kind of analysis which each

must perform for himself, and he who cannot perform it has no right to deny therefore that others can.

The doctrine of immediate experiences in general and of extensity in particular no doubt raises a number of difficulties. Some of these are metaphysical. Dr. Stout in MIND indicated all too briefly his metaphysical view, but this does not concern us here. The first question for psychology is whether the experiences are to be found by the impartial observer as they are described, and whether they do, as is stated, in all perception mean something beyond themselves. For my own part I am convinced that the psychological analysis is correct, though I feel less certain of the metaphysical doctrine which Dr. Stout connects with it, and indeed of the exact meaning of that doctrine. Psychology performs the analysis, I take it, mainly for convenience in subsequent genetic treatment; it starts from the concrete percept, and its analysis is not arbitrary because it follows lines of cleavage, or rather of articulation, found in the percept itself. That the fragments can soon be bled white, may very well be, but in the meantime their separation serves a useful, though strictly abstract, psychological purpose. Doubtless it is the same reality that is at once felt and "meant," or thought, but neither the assertion nor the denial of this proposition need affect the psychological utility of the analysis.

Where the doctrine seems to me chiefly to need further development is in the reaction of the meant upon the felt. The acquirement of meaning, which Dr. Stout discusses so fully, is not merely the acquirement of, so to say, an additional burden which the sensation carries; it is a modification of the sensational experience itself. The most obvious example of this is localisation. Both localisation and projection, says Dr. Stout, are acquired meanings. This is true, but it is not enough to say, *e.g.* that the localisation of skin sensations consists in their informing us of the extension of the surface of our own body (p. 480). A pain or a cutaneous sensation in one's finger is in a simpler sense localised there, though it is not a quality of one's finger, and the sensation itself is modified by the meaning it has acquired. In general, what we feel must in part depend on what we think, just as what we think upon what we feel.

There is a familiar difficulty about relations with which critics are fond of worrying the supporters of any doctrine of immediate experience. When it is said that the apprehension of such relations as resemblance, difference, and succession between objects independent of the mind is conditioned by the apprehension of the same relations between immediate experiences, we have to remember that in the mind whose development the psychologist is tracing the relations between immediate experiences can be apprehended only as themselves immediate experiences, whereas the psychologist can think of them as relations between immediate experiences which he is not experiencing because he has already

thought of these relations between other things independent of him. Confusion easily follows if this distinction, familiar enough to us, is not impressed upon the student who is beginning to study psychology. Dr. Stout has introduced into book ii., chapter i., a section on Change-sensations in which the point is quite clearly stated for change and motion; a general discussion of it in an earlier chapter might, however, have been advantageous.

I must speak more shortly of the other kinds of immediate experiences. Imaging raises just the same, but no new, difficulties. Of imageless presentations Dr. Stout says: "The nascent excitement of complex dispositions is accompanied by modifications of immediate experience. . . . In understanding the word 'wealth' we not only have the intellectual apprehension of a certain object, but feel in a peculiar and distinctive way, and . . . in understanding the word 'health' our immediate experience is, so to speak, coloured in a different way. . . . It is not merely or mainly through images . . . that the excitement of a complex disposition tells on our conscious life, and conditions the thought of objects which are not directly experienced. It operates also by giving rise to indefinite and not further describable experiences which may be called imageless presentations."[1] The occurrence of such experiences is indisputable, and the further account given of the conditions of their occurrence wholly admirable. But two questions arise about them. (1) Are they "objective," in Dr. Stout's sense of the word, or are they not, as he sometimes calls them, "quite peculiar feelings"? If, as I think, they are non-objective feelings, they ought not to be classed under "presentations". (2) Do they condition or give a cue to our thought of objects not immediately experienced, or are they simply concomitants of our thinking? They seem to me to be concomitants, and this must be so if they are not really presentations.

In the account given of subjective immediate experiences there are two points on which one wishes that Dr. Stout had been rather more explicit.

(1) Are there any such experiences besides feelings? Most of the examples given are feelings—feeling glad, sorry, jealous, angry, and so on. But occasionally Dr. Stout speaks as if attending, desiring, liking, willing, believing, etc., were immediate experiences (p. 8), though he does not call them subjective states outright, but "states, acts, or functions". The proper attitude of analytic psychology towards all the active '-ings' is, no doubt, a very difficult matter. The fundamental difficulty concerns thinking itself. The genetic problem is comparatively clear: under what conditions do we gradually come to think such and such objects in such and such ways? But psychological analysis is apt to try to isolate thinking both from other "states, acts or functions" and from objects thought, with the result that there is nothing left in

[1] Pp. 173-176; *cf.* pp. 531-533.

the way of an experience. To feel a feeling is simply to have the experience, and a feeling's being felt is simply its being there. Thinking, in so far as it involves active attention, involves feelings and sensory experiences, and in reference to them we may fairly speak of acts of thinking as immediate experiences. But they do not constitute thinking itself, and thinking itself, as soon as we abstract from objects thought, is not experienced at all. If Mr. Alexander's 'enjoyment' implies being in some way experienced, I do not believe that thinking either is or conceivably could be enjoyed. At this point the abstract analysis of psychology seems to me to break down hopelessly.

(2) How are feelings and sensations related to one another? Dr. Stout says in one place that sensations "are not immediate experiences which enter into the constitution of such subjective states as attending, desiring, liking or disliking, etc.; on the contrary they are immediate experiences which enter into the constitution of objects apprehended, attended to, liked or disliked" (p. 9). The reference in the latter clause is, of course, to the complex unanalysed objects of apprehension. But what of the former clause? It is generally maintained, and in some sense Dr. Stout admits elsewhere, that sensations do enter into or somehow colour at any rate the feelings accompanying, say, attention or belief, and again the emotions. Apparently he is indicating, though not very definitely, that sensations are not generically distinct from feelings, but are feelings possessing significance for cognition.

The whole of the second part of book iii. is now entitled "Growth of the Perception of the External World" in place of the old heading "Special Percepts". To the chapters on Spatial Perception reference has already been made. The alterations in the chapter on Temporal Perception are improvements, but do not need particular mention. The first and second chapters of this section, however, have been almost entirely rewritten, and are now, perhaps, the strongest and most important part of the whole book. The nature of the psychological problem is clearly stated at the outset. We have to take the belief in external objects as a datum and trace its development from rudimentary to more complex forms. "The knowledge of external objects is from beginning to end dependent on sense-experience. But as mental development advances the value of a given sense-experience comes more and more to depend on its acquired meaning; and it is the distinctive function of the psychologist to trace the steps and stages through which meaning is acquired by attention, retention, association, and reproduction."

The first problem, therefore, is to determine how much must be assigned to sensation as its primary meaning in distinction from its acquired meaning. It is not enough here to repeat that perception is not merely awareness of sensation, but awareness of sensation as conditioned by something other than itself; for our

belief is not simply that there are external things, but that they are members of one external world. This belief in the unity of the world cannot have developed from a string of perceptions in none of which it was present in a rudimentary way. Nor is it enough to point to the sensation-continuum, "because the growth of the knowledge of external reality constantly involves the breaking-up of this original sense-given unity" and the recombination of data in new ways. "We must," therefore, "assume from the outset something answering, in however vague a form, to our developed consciousness of the world as a unity". This rudimentary awareness of unity shows itself in various forms, as awareness, for instance, of spatial, and temporal, and causal unity, and of the unity of attributes in the same subject. These categories "belong even to rudimentary perceptual consciousness as a condition of its further development".

Those familiar with the *Manual* in the past will see at once how much the exposition has gained in clearness. The categories were there "forms of synthesis," and it was open to suspicion (though undeserved) that they somehow synthesised sensations into independent things. There is no longer any justification for that suspicion. To sensationalistic psychologists, therefore, these chapters will seem perverse. They will seem perverse also to those who acknowledge no genetic problem at all. On the other hand, the majority of psychologists, including even those who, as metaphysicians, are realists and reject the doctrine of immediate experience altogether, will find the treatment of the categories in perception extremely valuable.

The percept is not, as so often supposed by psychologists, something with clean-cut, definitely demarcated contours. It always points beyond itself. In perceiving an extended thing, we think its extension, not as self-complete, but as continued beyond itself; every apprehension of duration or change, points, however vaguely, to a 'before' and 'after'; the perceived object is 'something regarded as qualified by an attribute,' but so that this attribute is not taken as constituting the whole nature of the thing, but "the mind is prepared to look for further attributes"; the explicit thought of causal connexion could never have arisen unless a perceived change were treated from the outset "not as something self-existent in isolation, but as something conditioned by and conditioning other changes". At the perceptual stage, of course, the categories express themselves directly in action; they are necessarily involved in the prospective, expectant, seeking attitude itself. This chapter deserves the title, "Prolegomena to any future Psychology".

So much at least being premised as primary, there follows the task of tracing the development of the perception of an external world. Here Dr. Stout allows that much remains to be done, and he himself selects a few of the more important questions

for special treatment. First, how do we come to single out separate things? In answer to this, Dr. Stout begins by repeating the paragraphs on Thinghood from pages 329-330 of the previous edition; he then indicates other conditions such as spatial contour, change of an object in apparently unchanged circumstances, change of circumstances whilst an object is apparently unchanged, and the like;[1] and finally he indicates the percipient's own body as fulfilling, above all others, the requirements of perception of separateness.

It is next argued that "the growth of the distinction between the body of the percipient as a thing separate from other things coincides with the growth of the distinction between the embodied self and other parts of matter as spatially external to it and independent of it," and that "this, again, makes possible the distinction between the qualities of things and their varying sensible appearances". But here there seems at first sight to be a gap in the argument. Granted awareness of self, it may be said, the account of its development is excellent; but out of what does this awareness of self develop? We must postulate some rudimentary awareness of self from the outset, no less than of things, and the self of which we are aware must be apprehended as not being merely in this moment, but vaguely as having a past and less vaguely as having a future. This is, however, as I undertand, Dr. Stout's view. It is involved in his account of instinct, and in the section on temporal unity, and generally in his insistence on the prospective attitude, which is never simply expectation of something to come, but of something to come to me and something which I must prepare to react to; and on page 41 the doctrine is quite clearly laid down that "explicit awareness of self" is "pre-conditioned by implicit awareness" of self. Again, the primariness of rudimentary self-consciousness is presupposed in the note on page 433, according to which "projection of the self" is "equally primitive with the apprehension of material things". Is it not probable, indeed, that such "projection" is involved in the apprehension, if not of all, at any rate of very many things which afterwards we come to regard as merely material? If that is so, and it seems to be fairly well established, the development which psychology has to trace consists partly in the depersonalisation of material things. But it seems to me that a more compact discussion of primitive self-consciousness and of "projection" (if we must call it so) and recognition of mind in others, and of the influence of each on the development of the other from an indistinct to an explicit stage, ought to find a place in the first of these chapters on the perception of the external world.

The next section treats of the distinction between external reality and its sensible appearances. Here an ambiguity is removed, for

[1] The word 'presentation' is used rather ambiguously here, p. 452, line 5.

it is clearly stated that the externality now to be considered is externality to the percipient's body, and therefore presupposes the distinction of his body from other things. But "since the body of the percipient is primarily apprehended as an embodied self, such externality appears as, in a sense, externality to the self". The main question, then, is how we come to regard some changes as changes of a thing itself, and others only as changes of sensible appearance. "Our main clue is the category of causality." Thus if changes in my percept are found to vary with my free movements and varying bodily position, I apprehend them as conditioned by me and not by changes in the thing itself. If my movement is resisted or impeded, I find that I have to accommodate my efforts in amount and in direction to the thing, and the perceived change, *e.g.* in position of the thing, persists as a condition to which my motor activity must henceforth adjust itself. If changes in the perceived object take place without any movement on my part, I regard them as real, and gradually I come to refer them "to a causal system of their own contrasted with that to which mere change in sensible appearance is due". The exposition is vastly more clear and intelligible than that in the corresponding chapter of the old edition.

The fourth book has been less altered than any other part of the volume. In the first chapter the chief changes are the introduction of a section on imageless thought, a re-writing of the account of hallucinations in terms of acquired meaning of presentations, and a new heading to § 4 (old § 3). The new heading is "Likeness of impression and image," in place of "Likeness of object as perceived and object as imaged". The reason for the change is obvious: the independent object remains the same, however apprehended, and is meant as the same. But the word Impression is now introduced for the first time, and will certainly cause some confusion. Would not 'perceptual presentation,' though clumsy, have been safer? The term is used a few lines lower down.

In the chapter on "Trains of Ideas" there are several alterations, of which the most important is the introduction of a few paragraphs on the "ultimate nature of ideal construction". This addition is all the more desirable because Dr. Stout never tells us in the *Manual* what an "idea" is. In the *Groundwork* he defined it as a "significant mental image," saying that it has "two components, an image and its meaning". Its meaning, I suppose, must be that which is meant—that which, when we have the image, we think. On page 191 of the new edition of the *Manual* he has raised the question whether we are to call a reproduced meaning an idea. Here the idea seems to mean the object thought, though I do not understand how the object, which is not an immediate experience, can in any natural sense of the word be said to be reproduced. An immediate experience has acquired

meaning, *i.e.* in having it we think of an object again in a way which does not correspond merely to the primary meaning of the immediate experience, but is due also to previous like experiences and the thoughts connected therewith. But the phrase "ideal construction" seems on the face of it to imply that by thinking we put the object together. The new paragraphs contain a warning against taking the term in its obvious sense. The process really consists rather in finding than in making: it is a "transition from the apprehension of the actual to the thought of the possible". Briefly, it is not construction at all, except perhaps on the side of immediate experience (image), but is the discovery of fresh possible variations of a universal or common nature already known. Need we then continue to call it construction? For instance, in the chapter on the external world as ideal construction, when Dr. Stout is considering our belief in the continued existence of things when unperceived, would he not do better to speak outright, with Hume, of supposing, concluding, inferring? For he has a right to these notions, whether or not Hume had. It is significant that the chapter on the Self is no longer headed 'The Self as Ideal Construction,' but 'The Self as Ideally Apprehended'.

The changes in the remaining chapters are few and of minor importance. I feel that this review has dealt too often with trivial points, and that the great merits of this new edition have not been allowed sufficiently to shine through. Dr. Stout has revised, I do not say his principles, but at any rate his language, with extraordinary determination and care. The *Manual* is now not only a much better book than it was, it is in my opinion the best of the very few very good books on Psychology that have been written in modern times.

T. LOVEDAY.

Jahrbuch für Philosophie und Phänomenologische Forschung, in Gemeinschaft mit M. GEIGER, München; A. PFÄNDER, München; A. REINACH, Göttingen; M. SCHELER, Berlin; herausgegeben von EDMUND HUSSERL. Erster Band. Halle a.d.S.: Verlag von Max Niemeyer. 1913. Pp. vii, 847.

PROF. HUSSERL'S essay entitled "Ideen zu einer reinen Phänomenologie und Phänomenologischen Philosophie," containing the first of three "books" in which he proposes to deal with his subject, stands in every sense in the foreground of this valuable *Jahrbuch*, occupying 323 out of its 847 pages, and laying down the outlines of a science which he conceives to be new, and to be the prologue to a new philosophy. The contributions of his colleagues, dealing with particular applications of the doctrine which they hold in

common, are however of considerable independent interest, and are also of great service in illustrating the contentions of the main theory, which demands, as Prof. Husserl frequently insists, a special effort and a special point of view.

Phenomenology as here spoken of is "pure" or "transcendental" Phenomenology. In one section-heading there is mention of Phenomenology of the Reason (Vernunft). But as a rule the word is accompanied by no genitive case. It is not, I suppose, the Phenomenology of Consciousness as Hegel's was that of Mind. It is rather Phenomenology *par excellence*, whose method however consists in considering the vital experiences (Erlebnisse) of consciousness in a certain way.

I will try at once to indicate its fullest import, premising, however, that the author, in complaining of misrepresentation, lets us see that the expression "descriptive Psychology" had at one time, in the days of *Logische Untersuchungen*, been applied to it by himself. Then, as often happens, the phrase came to be used by others as a facile clue, after the author's views had far outstripped it. The new science, as he now conceives it, is in a way descriptive, but is not psychology. For Psychology is a science of facts, while Phenomenology is a science of essential connexions, and these not "real"; not part of the world of things and events, as the objects of Psychology must be.

Phenomenology, then, if I have understood it right, is the science of the essential connexions of vital experiences (*Erlebnisse*), as rooted in their nature or character; not, for example, of their causal connexions as events in time. An elementary example is the truism that sound, essentially, is not colour; or, to cite what I judge to be a favourite instance—colour is essentially inseparable from extension. For the purpose of letting us "see" these connexions and distinctions our consciousness, as the familiar instrument which we exploit in order to our orientation in the actual world, is replaced by a "preparation" which I might call a "statutory"[1] consciousness, that is, a consciousness that has been treated according to certain rules. The purpose of these rules is to throw us into the phenomenological as contrasted with the "natural" focus or attitude (*Einstellung*) of our minds. Their operation is to eliminate, to put out of court (*ausschalten*) all the existent realities which in the natural focus of the mind our consciousness perpetually presupposes or affirms. To eliminate them, that is, *as* affirmed realities; but not to eliminate from our purview the fact that they *are* affirmed. They are, we are told, to be "bracketed," "put between quotation-marks". Or, they continue to be for us, but with a change of sign. We study not themselves, but the character of

[1] It is my own phrase, drawn from such a fact as that we in England have to return for taxation a "statutory" income, *i.e.* not what we actually receive in twelve months, but an artificial figure, prepared according to certain directions.

the "*Erlebnisse*" by which consciousness affirms them, and the fact that it does imply or "intend" them.

All "transcendences" are in this way ruled out—that of the spatio-temporal world, of God, even of the truths of abstract logical science. Nothing is directly accepted but what is immanent in vital experience itself, as, for instance, in some degree, the "pure ego".

What, then, is the procedure of the science, and what has it to discover?

The procedure is "intuitive". Ratiocination, and especially metaphysical deduction or argument "from above," are altogether excluded; as again is experience or induction in the sense of inference from facts to facts. The "principle of principles" is thus stated, "Every originary dator intuition[1] is a source of justification (Rechtsquelle), of knowledge, and everything in the intuition which offers itself as originary is simply to be accepted as it presents itself, *but* only in the limits in which it presents itself. This no conceivable theory can make us doubt" (p. 43.), or again "Sehen überhaupt als originär gebendes Bewusstsein welcher Art immer, ist die letzte Rechtsquelle aller vernünftigen Behauptungen". (p. 36). (It is here that we find the noteworthy observation, "ein Sehen mit einen anderen Sehen streiten kann und ebenso eine rechtmässige Behauptung mit einen anderen".) You can *see*, in short, essential characters and connexions, as you can see that $2+1=1+2$ and that nothing can alter this. And, finally, though descriptive of essence, Phenomenology is not "exact". Exactness is a feature of some regions, but some are *essentially inexact*. Phenomenology is *not* a Mathematic of *Erlebnisse*. The author points out that similes (club-shaped, serrate, etc.) do the work *e.g.* of botany in a way in which geometry could not. The use of similes is a marked feature of all the papers.

And what sort of thing does the science hope to discover? by what sort of truths will it enrich our philosophical equipment? Here it is of interest to adduce a note in *Logische Unterschungen*[2] which shows us pretty clearly that the author came to his doctrine by the road of descriptive psychological consideration of the factors actually (*reell*) "lived" (*erlebt*) in conscious experience. Thus he would arrive at, *e.g.* the relation of colour and extension, or the necessity of the spatial modifications (*Abschattungen*) apart from

[1] The introduction of a number of new technical terms, some, I almost think, new German words, is characteristic of the theory, which takes itself as a new point of departure. "Originär" (Gegebenheit, geben, gebender Akt, gebende Anschauung) applies always to the *best* source, *e.g.* to sense-perception as compared with memory or Einfühlung. "Erschauen" is by definition (*Log. Unt.* ii., 386) "unmittelbar adäquat erfassen". Wesenserschauen is a favourite term. "Eidetisch" knowledge or truth is that founded in intuition of the Eidos or Wesen. "Einstellung" = mental focus or attitude.

[2] II². Part i. 397.

which no spatial perception is possible, and which are essentially inexhaustible; while an *erlebniss* or feeling itself is what it is, and can be apprehended through no such aspects or modifications, due to changing points of view.

But his conception (see not. cit.) subsequently enlarged itself to include not merely the factors directly "lived" in consciousness, but also their intentional significance; so that the climax and main emphasis of the present essay lies in the relations of noesis and noema—the insight into the "acts" by which the grades and structures of actual (*reell*) consciousness (noetic) build up correlative grades and structures of intentional objects (noematic) from single objects of sense-perception to things and values of every complexity. Thus the consideration of intentionality in all its forms—not only in judgment but in will and feeling, plays the principal part in the work before us, and we find given in principle the foundations of the general sciences of values and of ethics.

The order of the work is briefly this. The author first explains, in a short logical discussion, the relation of fact to essence, pointing out how essence is inseparable from fact, but sciences of essence in no way depend on sciences of fact; and he draws out the conception of abstract and concrete as dependent and independent being. On this follows an account of the meaning of "region" and category, making clear that the formal logical region of "objects-in-general" is not a superior genus to which all concrete regions are to be subordinated. A region is the highest genus of a concrete—a system of laws or forms, such as that which geometry provides for a single character—spatiality—of things. Every character of a "thing" falls within a similar inclusive determination, and the system of these determinations is the "region" "thing".

Following on this is the author's criticism of empiristic fallacies, claiming for his own view, we may presume as against the school of Mach, the title "Positivist"—"if that means adhering to originary apprehension"; while on the other side he condemns the idealistic confusion which treats "*Evidenz*" as established by a peculiar feeling of necessity.

Then, as a preliminary to explaining the Phenomenological attitude, he deals in a most valuable section with the relation of consciousness to natural reality, with the province of pure consciousness, and the phenomenological reductions of which we have already spoken. The treatment of the sensuous and "physical" thing in their respective relations to consciousness and to each other is of the highest value and sanity, and the criticism of the "sign" theory is particularly effective. "Even the higher transcendence of the physical thing," he concludes, "indicates no reaching-out beyond the world for consciousness."

Space forbids our saying much of the author's doctrine of the primacy of consciousness as against the world of things. I imagine

that in his startling sentence—"Ein absolute Realität gilt genau so viel als ein rundes Viereck," the word *Realität* indicates an aggregate of things and events—not reality in the pregnant sense which other theories ascribe to it. The world, so construed, presupposes consciousness, as whose meaning alone it *is*—this I take to be the doctrine, and *prima facie* I have nothing against it. Of course, as the author insists, it is *not* Berkeleyan Idealism.

After these discussions follows the theory of Intentionality, which has already been referred to, and a final section on the Phenomenology of Reason, dealing mainly with the nature of *Einsicht und Evidenz* as grounds of "the verdict of reason".

I am sensible that I have done very scanty justice to this remarkable paper. The fullness of its matter and the sanity and acuteness of its observations and distinctions merit for it ampler treatment than is possible in a review. The one word of criticism, or rather of speculative suggestion, which I shall venture to throw out, will come best after referring to the remaining contributions.

In Dr. Pfänder's paper "Zur Psychologie des Gesinnungen," our difficulty, for which, of course, so far as it concerns the resources of our language, the author is in no way responsible, is to know exactly how we are to render the term *Gesinnungen*. I should have thought that the word implies something persistent, and the author seems to recognise such an implication in his distinction between "*aktuelle Gesinnungen*" (= *Gesinnungsregungen*) and "virtual" and again "habitual" *Gesinnungen*. But as he decides to make "actual" *Gesinnungen* (or *Gesinnungsregungen*) the immediate subject of his paper, he disconcerts our desire to recognise the distinction between, say, a "sentiment" as a persistent attitude or structure, and an "emotion" as a temporary reaction. This point bears also on his complete severance of *Gesinnung* from conation (*Streben*). No one would say, perhaps, that it *is* a conation; but it is another thing to deny that it bears an essential relation to a persistent conative system. I should have wished to render the word *Gesinnung* by "sentiment" or "emotional disposition". But the restriction to "*aktuelle Gesinnung*" forbids this, and must make the subject of the paper pretty nearly equivalent to emotion. The author methodically distinguishes it from thought and opinion, from conation and will, from pleasure and pain. But perhaps he hardly gives an adequate positive account of the kind of permanent system in which the temporary emotion has its source.

Though the "actual" *Gesinnung*, then, seems rather like an emotion, the author is more concerned with what we should call a personal sentiment. He is thinking mainly of such phenomena as love and hate; he does not seem to have in mind such emotions as fear, suspense, anxiety, regret, surprise, elation, which refer to situations rather than to personal objects; though he recognises as objects of sentiment things, communities, and opinions. Thus he

is really dealing with temporary emotions based on quasi-personal sentiment; and is enabled to lay down the principle that *Gesinnungen* fall into two opposite classes, positive and negative, of the types of love and hate.

In describing the essence of *Gesinnungen* he has much recourse to similes, and expresses his agreement with Husserl's view of their value. Every positive *Gesinnung* is a centrifugal outpouring of feeling (*Gefühlsausströmung*), favourable, uniting, affirming. Every negative *Gesinnung* is of the same type, but injurious, dividing, negating. This centrifugal "*dreizinnig*" relation is essential both for love and hate. And further, in every *Gesinnung* the subject is either superior, equal, or inferior to the object. "Is"—for the subject may not feel so. A man, I suppose, may feel himself above his wife, but his attitude may show that in earnest he accepts her as above him. The whole account is framed on the basis of personal relations, and is couched in language of this kind. The spirit and thoroughness of the attempt are excellent; and the fact that I cannot recognise the aptness of all the above descriptive phrases may be due to my defects rather than theirs. A striking conclusion to the paper is a discussion of spurious psychical phenomena, both in the way of sentiment and of thought. Thus it is maintained that a lie is not a mere form of words or mere use of a rejected idea; the liar, in a way, even inwardly maintains it. He is really angry and offended (I add) when it is denied.

Max Scheler's paper "Der Formalismus in der Ethik und die materiale Wertethik" seems to me a very excellent and original piece of work. It is impossible here to dwell on its elaborate and valuable detail. The general contention is clear from the title. The object is, while accepting as final Kant's condemnation of all Ethic depending on experience of consequences or on prescription of Ends (Erfolg- and Zweck-Ethik), to defend against him another conception of a "material" Ethic, namely, one resting on a theory of *a priori* values. Such a contention involves not only the rejection of Kant's formalism, but the complete overthrow of his inverted egoism and hedonism, and his general "*Misstrauen*," to use Herr Scheler's phrase, of nature and the world. For nature (including human nature), the author urges, is no "chaos," to be organised from without; it is inherently organic. Throughout it is his aim to establish life and conation as authorities, so to speak, in their own right; in which, in their original and pervading orientation, the sense of values is involved, and their hierarchy progressively revealed. Not that conation is disciplined and habituated by the experience of pleasurable results; it is against all these ideas, against, one might say, all imposition of ends by the environment, that the author is desirous to protest. Values are implied in conation (Streben) *ab initio;* the pursuit of pleasure is a late and artificial phenomenon. The originality and wholeness

of life, as against the notion of a mere response to a physical environment, is what arouses the author's enthusiasm. If you take the sense-organs separately, and estimate their reactions under artificial conditions, you may get what you call "sensations," and then if you go on to compound the external world out of these, you arrive at the "philosophie—von Mach". "Und im gleichen Weise," he breaks out in a later passage, "sollen dann auch die Werte 'subjective Erscheinungen' sein die 'eigentlich' nur Namen für wechselnde Leibzustände (sinnliche Gefühle) darstellen". But the life-process, organism and environment are not there to produce sensation and feelings; sensation and feeling are in the service of the unitary life-process which gradually differentiates its reactions, revealing the fullness of qualities which exist in themselves, and the realm of values.

Values then are given, and given *a priori*, and in a hierarchy. It is a prejudice that only the sensuous can be given, or that relation, value, time and space, movement, and the rest, are constructed out of it; on the contrary, a pure sensation can never possibly be given. "The true seat of all values *a priori* is the cognition or vision of values which builds itself up in feeling, preference, ultimately in love and hate." The signs of higher rank in values are duration, absence of extension and divisibility, absence of being 'founded' on other values, depth of satisfaction, absence of dependence for appreciation on the persons or functions in which they are embodied.

I must pass from this remarkable paper, with which I have great sympathy[1], although I cannot but think that it is involved in the ultimate difficulty which appears to me to apply to this whole mode of thought.

Moritz Geiger, in his "Beiträge zur Phänomenologie des asthetischen Genusses" first examines *Genuss* in general, distinguishing it from pleasure, *e.g.* from such a pleasurable emotion as gladness (*Freude*). The central difference, as I understand, lies in the absorption of the ego in a total experience (*Erlebniss*) which belongs to *Genuss*, while pleasure is not a total experience, but rather, to use my own phrase, an abstraction within one.

Then he proceeds to consider how much in the features of Genuss as such—for instance, its "*Motivlosigkeit*" or directness of absorption in its object—has been wrongly set down as characteristic of Æsthetic *Genuss* in particular. The true differentiation of Æsthetic *Genuss*, he concludes, is in the element of *Betrachtung*, which involves a certain holding at a distance of the object enjoyed, such as you do not find, for example, in personal activity, or "sport," or in enjoyable bodily sensations. And the minimum

[1] Two minor details there are wherein I must differ sharply. I cannot believe that *Gesinnung* is beyond the influence of education. Plato's Republic 401D I take to be eternal truth. And I cannot believe that evil is equally systematic with good. Here again I hold to Plato.

definition of Aesthetic enjoyment is formulated, not very differently from that of Kant, as "the disinterested (we cannot, I think, render "*un*interessirt" by uninterested) contemplation of the Fülle of the object".

Is there not here some risk of conflict between the "holding at a distance" which admittedly involves a definite attitude (*Stellungnahme*) in Æsthetic *Genuss* and the total absence of definite attitude which is taken as a feature of *Genuss* as such (cf. pp 627 and 648)?

I suggest, with great diffidence, that too much is made of *Betrachtung* and *Stellungnahme*. because, perhaps, a point has been missed in Kant's account of *Interesse*. Is not *Existenz* a more important factor in the definition of *Interesse* than the author allows? *Existenz*, I believe (I admit that I am reading something into Kant at this particular point, though not, I think, on the whole), gets its meaning from the contrast with *Schein*. The conception of æsthetic *Schein*, which Schiller drew from Kant's treatment of poetry, seems to me to carry us safely past difficulties and beyond restrictions too often insisted on, and partly countenanced even in this very able paper. The "existence" which Kant speaks of (as the correlative of Interesse) is surely to be illustrated by thinking of *e.g.* the real object represented in a picture as contrasted with the picture itself. It is the interest directed to that in the object which you cannot have in a picture of it, which is Kant's typical unæsthetic *Interesse*. But (and this leads to important results), no degree of interest, of passion or desire, addressed purely to the *Schein* or expressive spirit incarnate in the picture, has in it as such anything unæsthetic. If my interest in the Sistine Madonna makes me travel a thousand miles to see it, or my delight in a Turner painting makes me divest myself of half my goods to buy it, this is nothing in derogation of the æsthetic character of my interest, but may well be the complement and consequence of the intensest æsthetic passion. Thus the word *Betrachtung* exercises, I suggest, a deceptive influence which Kant's real conception does not sustain, and, by excluding, as we saw, the enjoyment of our own activity from the æsthetic category, rules out from the account of æsthetic enjoyment the artist's creative rapture, or the passion of the spectator who in some remote degree can feel with him, which appear to me to be its purest and highest forms. I believe the reason is that *Interesselosigkeit* is supposed to exclude passion and creative expansion. But Kant did not in the least mean this. He only meant to exclude a passion which is not directed to the absorption in *Schein*, but to the processes and consumption of existence exclusive of *Schein*. The layman's or connoisseur's *Betrachtung* is, I believe, only a frigid and superficial anticipation of the true æsthetic passion which the artist and genuine art-lover enjoys. It is, I take it, a *parti pris* in these essays, slightly diverged from by Herr Reinach, not to refer to Hegel. The reason is, I presume, that his method is distrusted,

and I shall say a word on it in the sequel. But here I cannot avoid suggesting that a page of Hegel, from say the *Einleitung* to the *Aesthetik* would have kept the discussion on a straighter road. I regard the paper, however, as highly valuable, for its careful study of the full meaning of *Genuss* as such.

I may indicate Adolf Reinach's main contention in his essay "Die apriorischen Grundlagen des Bürgerlichen Rechts," and also its connexion with the main drift of the volume, by citing a few lines from page 694. "The peculiar character of ideal objects has recently once more begun to be recognised beside what is physical, and psychical. But the essence of these objects, number, concepts, propositions, etc., is their being out of time. Claims and obligations, on the other hand, arise, last for a definite interval, and vanish again. They appear to be temporal objects of a quite peculiar kind, hitherto unnoticed. We see how definite laws, directly intuitive, are valid of them; [*e.g.*], a claim to a definite performance is extinguished in the moment that the performance has been discharged." The example, like the whole method of this volume, reminds us of Locke's suggestion for a moral science endowed with geometrical necessity, based on the comparison of ideas, giving such laws as "Where there is no property, there is no injustice". Only that a claim is here made to a more synthetic character.

The *a priori* system of these peculiar objects is sharply distinguished by the author from the system of moral obligations. Jural claims and obligations arise, he contends, from voluntary acts, and are extinguished by such acts; moral claims and duties do neither—they depend on situations. There is, he points out, of course a moral duty, *e.g.* to observe a promise, but the obligation created by the promise is prior to the duty.

This contention is fundamental, and I cannot think it is just. It appears to me to confuse the general fact of being such a creature as to recognise moral obligations, with the detailed organisation of life by which alone that fact becomes actually operative. It is not a matter of my voluntary arrangement that I have moral duties; but it is a matter of my voluntary arrangement what those duties are—whether I teach Greek or mathematics; whether my brother or I am responsible for the care of our old mother. Jural claims and obligations, the author says, are transferable by acts under certain conditions; moral claims and duties are not. Now what is true, surely, is that the general fact of moral obligation in practically infinite possible directions persists under the arrangements by which alone we give it practical effect, and may revive at any point on their failure. But nevertheless the arrangements which constitute the channels of duty, are *prima facie* valid, and draw their validity from the moral obligation which underlies them all, as exemplified in the arrangement by which they are specified. Jural rights, etc., are only an external case of such

arrangements. They are made by "social acts," as the author rightly reiterates; and that means that they are made possible by the social recognition which is rooted in the common moral consciousness, or constitutes the essence of a social act. Thus they draw their validity from the same source as moral obligations, that is, from the unitary consciousness which however tacitly (*cf.* the old example of men pulling oars in the same boat), recognises me and thee as partners who give and expect co-operation, and from whom, in external but necessary matters, it may under certain forms be exacted. The acts are merely specifications *ad hoc* of the co-operative consciousness.

None the less for this difference of opinion I recognise the excellent work done here in bringing home the difficulties of a full and clear statement in answer to such questions as "What is the essence of a promise? of representation? of property?" But I do hold that the different accounts *e.g.* of the validity of a promise, which the author reviews, social convention (Hume), psychological reinforcement (Lipps), damage by deceived expectation (Schuppe), should have suggested by their obvious relevance and equally obvious partiality that they are all sides of some one great fact, such as the social consciousness, and cannot be reduced to any isolated formal relation. If we bring together and interpret the conditions which the author himself insists on, "social act," "*Vernehmungsbedürftigkeit*," "*Verhalten von Personen*," and the like, we surely are driven to assign them a centre in the common consciousness.

I note that, with a view, as I suppose, to his conception of the *a priori* simplicity and self-evidence of, say, the implication of a promise, the author is inclined to justify the political contract theory against the criticism that it is a ὑστέρον πρoτέρον. And of course I agree that effective contracts or co-operation need not presuppose the developed State. But that any contract can account for the power to agree, *i.e.* to make contracts, does seem to me absurd.

I must however break off. The volume before us, as even this scanty sketch may have indicated, is full of thorough work. It is perhaps too soon to express an opinion whether the movement will prove able to fulfil its claims, and pave the way to a new and sound metaphysic.

But with reference to this possibility I do desire to make one general suggestion which may be expressed in a philosophical and again in a historical form.

First, if, as I gather, the apriorism here mentioned, with its *Einsicht* and *Evidenz*, is relative in every case to the whole under immediate contemplation, is it possible to predict the result when the whole contemplated begins to approach the absolute, and *all* the *Einsichten* have to be fundamentally reconciled with each other? It is a remark which has constantly forced itself on me in the consideration of theories of the *a priori*, that there is an

invincible tendency to confuse it with the *prima facie*. The true *a priori* must surely be absolute. But I understand that all the *Einsichten* and *Evidenzen* here in question are provisional (see Husserl, *Jb.* 1, 43 and 36-7). The isolation in which the several problems are maintained, as we have seen throughout the applications of the theory, the reiteration of the phrase that so and so "mit" so and so "hat nicht das mindeste zu tun," a phrase always suspicious in philosophy; the whole attitude of *Erkenntniss theorie*, pointing beyond itself to a world which it leaves disunited and unaffirmed—all this, if I am right, will undergo some radical transformation when once the question of first principles is seriously raised. Prof. Husserl has already in progress a treatment in which these matters will no doubt command attention, and we must suspend judgment at least till it is before us.

But, to put my ground for hesitation in another form, I cannot think the ignoring of the post-Kantian work to be methodically right or wise. The truer appreciation of its method, which has been arrived at since the days of the primary reaction, shows in it no such discrepancy with the methods of the work before us as some ironical allusions, which I imagine to be pointed at it, appear to presuppose, and to confront the post-Kantian work would be the same thing, I think, as to concentrate the provisional *Einsichten* in an ultimate view. Till this has been tried, we cannot, I believe, judge effectively where the movement would carry us.

B. BOSANQUET.

The Crowning Phase of the Critical Philosophy; a Study in Kant's Critique of Judgment. By R. A. C. MACMILLAN, M.A., D.Phil. London: Macmillan & Co., 1912. Pp. xxv, 347. Price 10s. net.

IT is not often that a book which has so many good things in it as this one leaves the reader in so divided a state of mind. Dr. MacMillan has chosen a supremely interesting subject, and he has handled it with undeniable freshness and originality. Travelling over well-trodden ground, he has succeeded in surveying it from an unfamiliar point of view. At least, I am not acquainted with any book which reviews the *Critique of Judgment* from a standpoint so definitely *religious*. And the author's conclusions, revealing much of his own personal 'Weltanschauung,' deserve sympathetic attention. But, on the other hand, his standpoint is sufficiently disparate from Kant's to make his reading of Kant sometimes very forced. This must always be so where a critic sets out to make explicit Kant's 'inarticulate motive' (p. 330). Moreover, Dr.

MacMillan's style is frequently obscure, and his habit of throwing out, as he goes along, unelucidated *obiter dicta* on all sorts of things, does not make it easier for the reader to follow his line of thought. Perhaps Dr. MacMillan will appreciate my point if I say that, were it possible, I should recommend a reader to take the last chapter first and read the book backwards. He will understand it better, and enjoy it more.

The general drift of Dr. MacMillan's argument may be summarised as follows. His problem is the familiar one: What is the relation of the third *Critique* towards the first two? How far does it enable us to get beyond the sharp antagonisms between 'constitutive' and 'regulative' principles in knowledge, between inclination and duty in conduct, between the realm of Nature as conceived by Science, and the realm of the Moral Will with its postulates of Freedom, Immortality, and God? For Kant 'knowledge' means the world-view of Natural Science—a theory which, on a basis of sense-experience, actual and possible, conceives Nature as a 'Mechanism' of 'things' in 'time' and 'space'. But the world, conceived in these terms, exhibits characteristic marks of logical incompleteness and incoherence (the 'antinomies'). It is not, in technical language, the all-inclusive 'whole' which it ever strives, and ever fails, to be. Hence the antagonism between 'phenomena' and 'noumena,' the world in terms of science which is logically unstable, and the world in terms of philosophical speculation which, though the regulative ideal of knowledge, can, in Kant's words, be 'conceived' but not 'known'. The same antagonism is far acuter still within the realm of Moral Conduct, for it is now shown to penetrate to the inmost nature of man as an active, self-realising person. Appearing first as the conflict between desire and the self-imposed law of the rational will, it becomes for Kant identical with the antithesis between man as 'phenomenon,' a wheel in the Mechanism of nature, and man as 'noumenon,' in virtue of his freedom determining his own actions. And these standpoints are ultimately contrasted as 'knowledge' and 'faith'. Into this clash of theories the *Critique of Judgment* enters with a promise of reconciliation. In two directions Nature exhibits a 'purposiveness without purpose,' *viz.*, so far as 'things of sense' are (*a*) beautiful, and (*b*) organic. There are no actual purposes, there is no actual maker. It is only *as if* an intelligent maker had made them. Still, in as much as the causal Mechanism is capable of producing such objects, we are entitled to speculate whether there may not, in the last analysis, be a profounder kinship between Nature and Spirit than the antagonisms in the realms of science and morality could have led us to expect. Thus the Theory of Beauty joins with that of Organic Teleology in pointing towards a positive, all-inclusive synthesis. No wonder that the *Critique of Judgment* has been acclaimed as the high-water mark of Kant's Philosophy.

Dr. MacMillan's argument moves within this frame-work, which I have here stated in my own words rather than in those of Dr. MacMillan's first chapter, in which he traces the movement in Kant's thought towards the 'new principle' of the third *Critique.* But it would be quite wrong to assume that Dr. MacMillan is either one of those who regard Kant's philosophy as final, or of those who, recollecting that the *Critique of Judgment* contains the germs of 'Objective Idealism,' treat it mainly as a step on the road to Hegel. It is in neither of these senses that Dr. MacMillan speaks of a 'crowning phase,' or expects 'the conjunction of Æsthetic and Teleology . . . to become the natural formula for the philosophy of the twentieth century' (Preface, p. vii). He is too critical of Kant for a Kantian, and too theological for a Hegelian. It is very clear that, when he speaks of the 'Supersensible,' the philosophical term covers no Absolute, but the God of Christianity.

The second chapter discusses the general character of the new principle, Reflexion or the Reflective Judgment. Incidentally, there are some interesting remarks on the meaning of 'objective' and 'subjective' in Kant. I quote from the author's "Analysis of Contents" (p. xiii): 'Objectivity with Kant refers to *province* rather than to content of Judgment, namely province of sense-objects'. But I cannot agree that the comparison of Kant's sense of 'subjective' with that of Descartes (p. 55) is equally happy. The point of resemblance seems to me to be superficial. Again, whilst I agree heartily with Dr. MacMillan that the 'I think' is not subjective in any sense which is opposed to the 'objectivity' of what I think, I cannot follow him when he says that the meaning of 'subjective' is 'personal as distinguished from divine or absolute mind' and 'free from the obligation to think the objects of external sense' (p. 56). I can find no warrant in Kant for this interpretation, which, moreover, seems to me to conflict with the author's own statement (sandwiched between the two quotations just given) that "the 'I think' shares the nature of the 'objective synthesis' and therefore may be said to lie at the basis of all knowledge" (*ibid.*).

The next four chapters deal with the details of the reflective judgment in the sphere of Æsthetics. There are many interesting points in them. Thus, in chapter iii. (which deals with the 'disinterestedness' of æsthetic enjoyment), I note the criticism of Kant's treatment of the beauty of geometrical figures, and some pages (76-94) in which Dr. MacMillan 'lets himself go,' giving us, in a discussion of realism and idealism in art, some interesting literary criticisms. From these he passes to a discussion of 'imitation,' and of beauty in photography, ending with some pertinent remarks on certain views of Croce. Chapter iv. has highly technical discussions of Kant's doctrine of the *Schematism*, of *Causality*, and of *Time*. In chapter v. the passages comparing Kant and Schopenhauer in respect of their theory of Music, and Kant and Schiller in respect of the place of charm in beauty, may be noted; also the beginning of a discussion of genius

which is resumed in chapter vi. ; and the author's tentative use of the term 'empathy' (p. 182). As far as I can judge, however, the meaning which Dr. MacMillan here proposes to assign to 'empathy' ('it is the limit at which consciousness is still possible without a determinate object') agrees neither with that of Prof. Lipps who first used the term, nor with that of Prof. Ward who first introduced it into English Psychology, nor with the author's own use of it in later passages where he speaks of empathy as 'the basis of Ethical Teleology' (p. 338) and as 'the deep self-affection of the subject' (p. 342). Chapter vi., on the Sublime, offers an interesting critical argument on Kant's theory. According to Dr. MacMillan, Kant errs by making the experience of the sublime too intellectual and too little imaginative, with the result that the sublime becomes for him non-sensuous, and therefore non-æsthetical. Here again Schopenhauer's theory is favourably contrasted with Kant's.

In the long seventh chapter, on 'Teleology in Nature,' I note a comparison of Kant's theory of Evolution with that of Darwin which would have benefited, had Dr. MacMillan been able to use the corresponding discussion in Driesch's *History and Theory of Vitalism*. There are also some critical observations on Bergson's Creative Evolution, and especially on his attitude towards Kant. But in the main the chapter, by a careful analysis of Kant's views, prepares the ground for the conclusions which Dr. MacMillan formulates in chapter viii., and especially in chapter ix. The following quotations fairly represent the outcome of the argument: 'Were it not for our moral consciousness, there would be no Organic Teleology and no really new principle. Such ends as Nature presents to us would remain what they are, empirical observations of which we can make nothing, if our moral consciousness did not encourage us to take them seriously. Our moral personality is the only clear instance of a self-contained end, and therefore of a natural purpose, and it is from this instance in ourselves, and from it only, that we are able to think of other purposive appearances as having inner teleology' (p. 310). Again: 'In Teleology alone do we unite the consciousness of a harmony in our immediate experience with the cumulative perception of a harmony in Nature herself, and so render intelligible the realisation of Freedom in the world' (p. 327). The most pregnant half of the *Critique of Judgment* is, therefore, not the Æsthetic, but the Teleology, interpreted as an *Ethical* Teleology, the experience of beauty having merely a symbolic value. The central point is that 'Moral culture is impossible except in a world which is itself informed with a moral intention' (p. 313). The main addition which chapter ix. makes to this conclusion is to give it a definitely religious turn: "The highest level of 'reflective' consciousness is neither Art nor Life, neither æsthetic nor organic purpose, but Religion—a type of Science which is neither dependent for its expression on artistic symbols nor equipped with the methods of scientific observation, but which is as articulate as

artistic expression and as certain in its conclusions as anything in Science" (p. 332). Reflexion is interestingly described as 'the emotional but reasonable apprehension of what is real' (p. 333)—and this very phrase perhaps illustrates best in what direction Dr. MacMillan has moved away from Kant's use of the term. And thus the book closes with a plea for the recognition of 'the experiences of the distinctively spiritual life' (p. 335), for a 'science of spiritual psychoses' (p. 338), which is to prepare the way for 'that final stage of culture of which Æsthetic is the symbolic expression and of which Ethical Teleology is the progressive realisation' (*ibid.*). This spiritual mode of experience ('empathy' in Dr. MacMillan's sense) is not to be confused with Mysticism (p. 335), nor does it need contact with sensation (p. 341), nor is it to be tested by merely logical criteria (pp. 344, 345), for it is 'more than intellectual,' assimilating intelligence as one of its elements. 'The Intuitive Understanding is within us; for . . . the nature of the ultimate Ground of existence and the nature of the human mind are of the same character, namely, purposive reality without a purpose, or indeterminate coherence' (p. 346). Every reader, I think, must settle for himself whether this is an adequate characterisation of the import of religious experience.

This survey and these quotations may serve to show the scope and interest of Dr. MacMillan's argument. There are, however, some faults which evoke the reader's criticism and thus diminish his enjoyment of the book.

To begin with, the "Analysis of Contents" (pp. xi-xxv) does not always follow the actual argument of the text as closely as it should. The worst example I have noticed is to be found in the analysis of chapter ii. (p. xiii) where we read: 'Feeling mediates between Cognition and Conation: in modern terms, Feeling is the consequent of Cognition (modification in the sensory-continuum) and the precedent to Conation or Desire (modification in the motor-continuum); if experience be regarded as a kinæsthetic-continuum, Feeling will be *the self-consciousness of experience*'. I have in vain searched the text for any explanation of this passage. I should challenge, so far as I understand it, the identification of Cognition with modification in the sensory-continuum, and still more the identification of Conation with Desire (which is a special form of it) and of either with modification in the motor-continuum. And whatever these phrases may mean, they leave the description of Feeling as 'the self-consciousness of experience' quite meaningless for me—as meaningless as the later description of Judgment as 'the self-consciousness of Cognition' (*ibid.*). Is the phrase perhaps only an alternative for the description (p. xv) of pleasure and pain as 'the *apperception* of all sensation'? But I am not sure what that means either, and in any case I should like to know what Dr. MacMillan's authority is for

using the term 'apperception' which has a definite meaning in Psychology, in this context.

Again, Dr. MacMillan's interpretation of Kant is not always quite accurate. I will add a few instances to those already given above. I should question the justice of the description, on page 8, of Kant's conception of Reason as 'fundamentally moral' and as consisting in 'the apprehension of truth in the practical decisions of the will'. Again, if Dr. MacMillan will reconsider Kant's arguments for the *a priori* character of space as a form of perception, he will, I think, see that his statement on page 13 does not reproduce Kant's 'chief argument' fully, and that there is nothing in that argument to justify his gloss that a sensation would, but for the presence of space, be 'nothing more than a subjective feeling or idea'. Further, is it not rather late in the day to speak of the problem that 'an idea in my head should indicate an object outside of me' (p. 24)? But most of all, perhaps, I should quarrel with Dr. MacMillan's discussion of Kant's Schematism. I fail to see the point of the comparison between Kant's Schemata and Dr. Stout's doctrine of Implicit Apprehension (p. 116). Again I have been baffled, on page 117, by the discussion of the relation of the Schemata to time, perhaps because I do not understand the phrases that Kant's Schemata are 'time-implications,' and that a Schema 'is not itself a process of consciousness but the governing consciousness of a process'. The passage from Kant, which Dr. MacMillan criticises at the bottom of page 118, appears to me capable of explanation, provided one does not, as Dr. MacMillan does, identify an 'empirical conception' with an 'image,' and speak of 'a mathematical category (*sic*), such as the pure conception of a circle' (p. 119). Such things confirm the misgivings aroused by such remarks as 'it is not really important what he [Kant] says' (p. 83). And what can be meant by calling Kant's theory of causality a *pons asinorum* (p. 128)?

Some difficulty, too, is caused by Dr. MacMillan's very loose way of handling technical terms, the exact meaning of which is never defined, and which appear to be used with different meanings in different passages. One example will suffice. Chapter viii. opens with these sentences, in which I italicise the words which seem to bear out my criticism: 'the *discursive* method of our *thought* does not disable us from apprehending living Nature. On the contrary, our *Understanding* with its modicum of *intuition* is peculiarly fitted for assimilating this plane of *perception* (p. 292).

And, lastly, there are a great many *obiter dicta* which are highly questionable. It would *e.g.* take a good deal more argument than Dr. MacMillan offers to establish his view that the relation of Ideas to Particulars, in Plato's 'earlier view,' is 'causal' (p. 18). Several curious examples may be found in the following passage:—

'His [Kant's] position is that finite existence is for a self but

Reality for itself, or in Mr. Bradley's phrase, that Reality is experience. The only difference is that what Kant conceives as a higher immediacy in the analytic consciousness of Freedom, Mr. Bradley conceives as a lower immediacy in Sentience. The former is a subject which is its own object, the latter is an object which is its own subject. But, on their own admission, both these realities are ideal limits which have nothing to do with experience. Kant admits that it is absolutely impossible to procure a single case in experience with complete certainty, in which the maxim of an act, ostensibly done for duty's sake, has rested solely on moral grounds and on the idea of duty. Mr. Bradley, again, cannot find a single piece of experience which is not vitiated by relation to self, and consequently swollen with a merely ideal content like a face stung by a bee; just as Kant's consciousness of Freedom transcends, Mr. Bradley's object which is its own subject falls below, the margin of experience, and then it becomes a lost quantity. Mr. Bradley desiderates a quiet encounter with a fact outside of experience where he may shun publicity and the exaggerated reports of the upper world:—

> "Foliis tantum ne carmina manda,
> Ne turbata volent, rapidis ludibria ventis".

One is reminded of the tramp who remarked on being convicted of drunkenness, that he must have had a glorious time of it last night judging from what the policeman told the magistrate' (pp. 301-302).

It is sufficiently daring to suggest that Mr. Bradley's 'Reality is Experience' means that Reality 'exists for itself'—the sense, I suppose, being that it is self-conscious. If that is the meaning, it appears to me flatly to contradict the phrase in the next sentence about 'lower immediacy of Sentience'. And whatever be the meaning, I can attach none to the characterisation of Mr. Bradley's Reality as an 'object which is its own subject'. Nor am I aware of any passage in Mr. Bradley's writings which would justify the statement that for him every single piece of experience is 'vitiated by relation to Self'. Finally, I fear, I should need to practise psycho-analysis on Dr. MacMillan to discover the relevance of the anecdote, the quotation, and the statements about 'quiet encounter' and 'exaggerated reports' to each other and to Mr. Bradley's philosophy. I should be hard put to it, too, had I to enumerate all the senses in which 'experience' seems to be used in these few lines. And as for the 'face stung by a bee,' its luridness is surpassed only by the earlier remark (p. 12) that 'the initial feeling of unity, with which the Understanding sets out in constructing experience, appears in its final form as the distended bladder of its own enthusiasm, which at a touch may explode into vacuity'.

But the book is too good to be judged by occasional passages

like this. Especially when expounding his own convictions Dr. MacMillan writes both simply and luminously. The following passage may serve as an example:—

'For the same reason, I do not think that obligation loses its meaning even for the divine mind. The existence of moral evil would be a hopeless enigma unless it had its ultimate ground in the nature of God. As Theætetus said to the Stranger, this may seem to be a "terrible admission". But if we say that obligation is confined to the finite mind, we are positing something which God does not understand, and therefore something by which the absolute nature of His being is limited. To be absolute the nature of God must contain the element of finitude, and in such a way that His finite nature shall not be regarded as evanescent appearance' but as a permanent feature of His existence. This is the truth expressed in the Christian doctrine, that the Son retains His humanity in His state of exaltation. It would be impossible for man to sin unless the possibility were present to the mind of God. When we say with Plato that God cannot possibly do evil, we mean that it is His nature to be good, and we do not express anything different in the alternative statement that He is good because He wills to be good. But the simple statement that He is good just because it is His nature, altogether neglects the element of striving in the life of God. The goodness of God would mean nothing to us unless it were possible for Him to be otherwise. And if the nature of God is such that this contingency shall never happen, it is because the necessity to be good is maintained by continuous exercise of His self-hood' (p. 315).

This is a very interesting view, and it is finely expressed. It shows Dr. MacMillan at his best, and in the final chapters he is mostly at his best. That is why I began by saying that we should enjoy his book most if we could read it from the end backwards.

R. F. Alfred Hoernlé.

La Notion d'Expérience d'après William James. By Henri Reverdin, docteur en philosophie. Geneva and Bâle: Georg et Cie., 1913. Pp. xxii, 221.

M. Reverdin seeks to penetrate to the central meaning of James's philosophy by elucidating the place held therein by the notion of experience. It is especially the new turn given to the philosophical study of religion by the *Varieties of Religious Experience* that has engaged him in this task (p. xi). The author's knowledge of James's writings—articles as well as books—is very complete; and his work is so carefully done, and is so free from the spirit of contention, that

it would be strange indeed if there were nothing to be learnt from it. Indirectly, indeed, there is much to be learnt from it; but the direct outcome of M. Reverdin's labours is rather disappointing, for he has avowedly (p. xiii f.) failed to extract any homogeneous body of doctrine from James's writings. He has, however, failed not merely to compress James's philosophy into a neat verbal tabloid which can be swallowed at a gulp—for this it was surely unreasonable to expect. It is a much more serious failure not to have seen that the one thing which gives coherence to James's philosophy as a whole is its pragmatism. This is neither to say that James, alone among philosophers, is entirely free from inconsistencies and obscurities, nor that his views never underwent any change, nor that they are incapable of further improvement. It is merely to insist that James never lost sight of the immanent teleology of the human spirit, and always understood that to treat such purposiveness as 'mere appearance' is simply to set man *at cross purposes* with himself. This demands the thorough substitution of a functional, for a structural, treatment of every problem.

M. Reverdin seems too much under the dominion of the ancient categories of the Locke *v.* Leibnitz controversy fully to grasp this transformation, or to perceive that the notion of experience must be as radically transformed as the old conception of empiricism. He will not quite give up the idea that empiricism must be the theory of the *tabula rasa;* and though James has ousted mere passivity from experience, he still seeks to fasten on empiricism itself that discarded ideal. "Radical empiricism (and this appears to me inherent in the logic of empiricism) seeks to describe and not to explain experience. How could one admit any 'principle' which should explain it? Naught but experience has the freedom of the city" (p. 118). Nor has he quite realised that James, while sharply opposing rationalism to empiricism, sets up no such fundamental opposition between reason and experience. For to discredit rationalism is not necessarily to disparage reason. True it is that the refusal to allow rationalism to beg the question by misusing the word 'reason,' deprives rationalism of its chief means of livelihood. But M. Reverdin holds no brief for rationalism; it is a pity therefore that the intellectualistic conception of empiricism as opposing sense to reason should receive his sanction. "It matters not," he says, "whether our mind and the forms into which it fits the real are the only conditions which could be realised for every possible experience, or whether they might have assumed some other shape and laid hold of experience differently. Knowledge bears the impress of this mind, and facts do not register themselves on a *tabula rasa.* The '*nisi intellectus ipse*' will always remain the answer to empiricism, in whatever guise it may be sought to revive it" (p. 195).

Yet M. Reverdin sometimes comes very near to the essential spirit of James, as when he says that "the psychological character of his

thought and writings forms as it were the mortar which holds the stones of the edifice together" (p. xix). And again: "In my view James is never read with more interest and profit than when the psychologist of genius joins hands with the clear-sighted, vivacious and profound moralist" (pp. 169-170). These *aperçus* are, however, neglected in his own exposition. Despite his special interest in the *Varieties of Religious Experience*, his book is almost entirely concerned with pure metaphysics. Nowhere do we find any discussion of what is, after all, the central insight of James's philosophy. It is only mentioned, baldly and without comment, in a footnote (p. 104): "What James calls the 'conceiving or theorising faculty' is, according to him 'a transformer of the world of our impressions into a totally different world,—the world of our conception; and the transformation is effected in the interests of our volitional nature, and for no other purpose whatsoever. Destroy the volitional nature, *the definite subjective purposes, preferences, fondnesses for certain effects, forms, orders*, and not the slightest motive would remain for the brute order of our experience to be remodelled at all.'"[1] Thus by showing that what had hitherto been regarded as the typically 'subjective' elements in experience are really the mainspring of 'objective' construction, James superseded the old absolute distinction between 'subjective' and 'objective,' the adequacy of which M. Reverdin simply takes for granted.[2]

These defects in M. Reverdin's exposition are strongly marked in the first of his five chapters. In it he aims at showing that "when James at the outset of his career declares himself an adherent of empiricism, he means that reality in the widest sense is the real fact as opposed to possibilities; from this point of view whatever is contained in our universe is contingent; realisation is contingency" (p. xiv). Now this seems, and is, a highly promising point of departure for the study of James's philosophy. But, both in this chapter and his "Remarques Finales" (pp. 187-190), M. Reverdin represents James as seriously and primarily interested in the question of possibility under a form so purely abstract and metaphysical as to rob it of all human interest. He considers it almost wholly from the point of view of the 'ontological problem,' *i.e.*, the problem why anything should exist at all. He does not even draw attention to the fact that James insists that no philosopher, not even Hegel, has succeeded in establishing "a natural bridge beween nonentity and *this particular datum*".[3]

M. Reverdin is able to quote (pp. 16-17) James as saying that "the notion of non-entity may be called the parent of the philosophic craving in its subtlest and profoundest sense. Absolute existence is absolute mystery;" and that "the bottom of being is left logically opaque to us, as something which we simply come upon

[1] See *The Will to Believe*, p. 117. The italics are mine.
[2] *Cf.* pp. 185 f, 198, 212.
[3] *The Will to Believe*, p. 72. Italics mine.

and find, and about which (if we wish to act) we should pause and wonder as little as possible. In this confession lies the lasting truth of Empiricism." [1] And again (p. 19): "Fact or being is 'contingent,' or matter of 'chance,' so far as our intellect is concerned".[2] Such passages, taken by themselves, might be interpreted either as meaning that the final contingency of reality is an *a priori* necessity of thought, or as meaning that empiricism is merely the practical refuge of a mind baulked in its legitimate craving for pure theoretic comprehension. Under either interpretation, the problem itself is legitimate, though the ambiguity of the solution is undoubtedly suspicious.

But is this what James really meant? The whole context plainly shows that James's real intention was to furnish, as blandly as possible, a *reductio ad absurdum* of the ideal of pure theoretic contemplation. It is our *active* nature, he is urging, that gives us the key to the proper interpretation of reality. This is already pretty strongly hinted in a passage on the genesis of the ontological problem: "Our mind is so wedded to the process of seeing an *other* beside every item of its experience, that when the notion of an absolute datum is presented to it, it goes through its usual procedure and remains pointing at the void beyond, as if in that lay further matter for contemplation. In short, it spins for itself the further positive consideration of a nonentity enveloping the being of its datum; and as that leads nowhere, back recoils the thought toward its datum again. But there is no natural bridge between nonentity and this particular datum, and the thought stands oscillating to and fro, wondering why was there anything but nonentity; why just this universal datum and not another? and finds no end, in wandering mazes lost." [3]

James's conclusion, which is strangely overlooked by M. Reverdin, is that the rationalistic conception of what constitutes the essence of rationality stands in urgent need of revision. After pointing out that "the peace of rationality may be sought through ecstasy when logic fails," James continues: "With this we seem to have considered the possibilities of purely theoretic rationality. But we saw at the outset that rationality meant only unimpeded mental function. Impediments that arise in the theoretic sphere might perhaps be avoided if the stream of mental action should leave that sphere betimes and pass into the practical. Let us therefore inquire what constitutes the feeling of rationality in its *practical* [4] aspect. If thought is not to stand for ever pointing at the universe in wonder, if its movement is to be directed from *the*

[1] MIND, xiv. (1879), p. 342. The last sentence, to which M. Reverdin draws special attention, is significantly omitted in the essay on "The Sentiment of Rationality" as republished in *The Will to Believe* (see pp. 72-73).

[2] *Some Problems of Philosophy*, p. 45 n.

[3] *Will to Believe*, pp. 71-72.

[4] This is italicised in the original. The remaining italics are mine.

issueless channel of purely theoretic contemplation, let us ask *what conception of the universe will awaken active impulses capable of effecting this diversion.* A definition of the world which will give back to the mind the free motion which has been blocked in the purely contemplative path may so far make the world seem *rational* again. Well, of two conceptions equally fit to satisfy the logical demand, that one which awakens the active impulses, or satisfies other æsthetic demands better than the other, will be accounted *the more rational conception*, and will deservedly prevail." [1]

In this way James brings out that the fundamental characteristic of a truly radical empiricism is to be found, not so much in some special theory of cognition taken *per se*—which M. Reverdin desiderates—as in the refusal to take cognition in abstraction from life. "Pretend what we may, the whole man within us is at work when we form our philosophical opinions." [2] Rationalism, then, is at best an *experiment* foredoomed to failure: and at its worst is a mere intellectual pretence. Its psychological impossibility is co-extensive with its logical failure. And what is this but to say that, for James at least, empiricism, in its opposition to the fiction of 'pure reason,' is the only *reasonable* theory of experience? It is not to be denied that James, adopting the language of his opponents, and imperfectly realising the danger of making verbal concessions to verbalists, not uncommonly appears to be attacking reason as such. But it is safe to say that the prime requisite for an intelligent appreciation of his position is the ability to discount this very superficial appearance. M. Reverdin does not commit this blunder in any crude form; but on the other hand he does not penetrate to the root of the misunderstanding.

This line of criticism might be pursued through the remainder of M. Reverdin's book. But that would be an ungrateful, as well as a lengthy, task. Despite the book's shortcomings, the fulness of its citations and its transparent sincerity entitle it to a place on the shelves of the serious student of James's philosophy. The comparative failure of so careful a study is perhaps best regarded as a testimony to the remarkable unconformity that James has produced in the philosophic tradition.

HOWARD V. KNOX.

[1] *The Will to Believe*, pp. 75-76. The remaining thirty-four pages of the essay are devoted to the amplification of this thesis.

[2] *Ibid.*, p. 92. *Cf. Some Problems*, etc., p. 35: "Rationalists prefer to deduce facts from principles. Empiricists prefer to explain principles as inductions from facts. Is thought for the sake of life? or is life for the sake of thought? Empiricism inclines to the former, rationalism to the latter branch of the alternative."

VII.—NEW BOOKS.

The Nature and Cognition of Space and Time. By Rev. Johnston Estep Walter. West Newton, Pa. : Johnston & Penney, 1914. Pp. 186.

Mr. Walter's general position is akin to the Realism of the Scottish Philosophy (a position whose strength it is very easy to overlook), which has received a restatement within recent years by Prof. S. S. Laurie, whose exceedingly acute writings, though they have given rise to some discussion in France, are almost unknown among ourselves. Mr. Walter is at his best when he simply launches out and tackles his problem without paying attention to what other thinkers have said. In these cases the argument is marked by a rugged strength which is very refreshing. When the author mentions other philosophers, he often displays a defective acquaintance with their views. Thus he says that "the followers of the Kantian thought" hold that space "is no true presentation of the real extension of the mind or of any object in the mind" (p. 14). This certainly suggests that "the followers of the Kantian thought" hold that the mind is extended and that objects are in the mind. Further, in dealing with the well-known antinomies with regard to the limits of space and time in Reid and Spencer (who is called by Mr. Walter "a close follower of Kant"), Mr. Walter does not seem to see that the antinomy in each case rests on a confusion due to the ambiguity of the term "imagine". "To imagine" may mean for Reid and Spencer either "to conceive" or "to form a mental image". It is impossible to form a mental image of unbounded space or endless time, but it is quite possible to conceive infinity of space and time.

Mr. Walter starts with what he calls the common-sense view of space—"Space is real empty room, illuminated or coloured, continuous, tridimensional, homogeneous, permanent, or [? of] vast but unknown extension" (p. 13). Mr. Walter's own doctrine is identical with this, except that he denies light or colour to be a property of space. For him light is "a phenomenal projection from the mind into space". What exactly this means Mr. Walter does not explain. Is light mental? Are the waves mental? This is what his words seem to imply (unless they indicate adherence to some one of the "emission" theories which Optics has long since abandoned), but it is a strange doctrine for a Realist. He also leaves quite vague what he means by "unknown extension". Does he mean that it is impossible to form a concept or impossible to form a percept of extension, or that though we can do either or both of these, we don't know how far extended extension is? It is probably in the last sense that Mr. Walter intends us to understand his statement. Some pages farther on he says that space is not entirely incomprehensible. We do know some space, *e.g.* the volume of space within the orbit of the earth. But such an argument really misses the point. All it says is that we know that within the orbit of the earth there is what we call space. It does not help us to say what space is. And that is the question. Clearly the space of which Mr. Walter speaks is perceptual space. But he draws no distinction between perceptual and conceptual space, and

applies results derived from an examination of what is perceptual space to what is conceptual space. He points out that we know space as far as the fixed stars, *i.e.* we perceive it—but that clearly does not justify us in making any statement with regard to all space, *e.g.* that it is homogeneous. The same confusion between perceptual space and conceptual space leads the author on the one hand to speak repeatedly of "parts" or "portions" of space, *e.g.* of those parts lying within the orbit of the moon, and on the other to insist on the indivisibility of space. In the former case he is thinking of perceptual space, and in the latter usually (but not always, *cf.* p 32) of conceptual space. It is evident that though Mr. Walter is not aware of the confusion on which the contradiction rests he is aware of the contradiction. Thus if he finds it necessary to speak of parts of space when he is insisting that space is indivisible, he does not say "parts" but "volumes" of space. In general Mr. Walter uses terms very loosely. He regularly speaks of the parts of an indivisible whole, or of an indivisible unit.

On the question of the relation between space and extension Mr. Walter vacillates. He criticises the view which identifies them, and holds that while space means empty space, extension is "the attribute of substances by which they fill space" (p. 51). But apparently forgetting this definition, he later distinguishes "filled extension" from "empty extension"—an obvious absurdity if extension is "an attribute of substances". In the end he is forced to identify space and extension, and thus his criticism of the view that space has no attributes breaks down, for the only attribute which he really tries to secure to it is extension, and this he has defined as an attribute not of space but of the things which fill it. (Mr. Walter also mentions tri-dimensionality as an attribute of space. But in view of the plausible suggestions that have been made regarding space of more than three dimensions, it seems rash to assert this dogmatically.) There is confusion also in Mr. Walter's account of the relation of the human mind and space. He speaks repeatedly of the mind as extended, and yet holds that "there is a real duality between the human mind and space" (p. 61). On the other hand God is not extended, yet there is no duality between God and space. Again, space is entirely independent of man's thought (p. 61) (a truly Realistic doctrine), but on the other hand "a thing is real for us because it is known" (p. 63) (a strange aberration from Realism). Sensations, Mr. Walter maintains, must themselves be extended, or we could form no idea of extension. Our first thought of time must be as long as the time thought of. The mind constructs the idea of space out of extended elements. Mr. Walter seems here to be at precisely the position of Augustine meditating on *mira quædam vis* of the mind which contains *tanta coeli terræ maris spatia.*

Misprints or errors in proof-reading occur on pages 5, 7, 13, 26, 32, 47, 60, 82, 89, 127, 185. And a protest must be entered against such "originality" as Mr. Walter shows in his use of prepositions (within certain limits any one seems to do as well as any other), in his inversion of certain conventions, *e.g.* when he speaks of "Mr. Spencer" and "Bradley," and in the use of such words as extensionless, unknownableness, illogicalness, knowledges (= cognitions), existenceless.

G. A. Johnston.

The Human Soul and Its Relations with Other Spirits. By Dom Anscar Vonier, Abbot of Buckfast. Herder. Pp. 368. 5s. net.

The atom is a great study, so is the 'fixed star,' so too is the human soul to all who believe that they have souls, which belief as a central doctrine

of Christianity was held by all the mediæval schoolmen. This work is not argumentative, but a presentation of the opinions of St. Thomas Aquinas, and his commentators, Cardinal Cajetan and Ferrariensis, whom the author calls 'our masters' concerning the human soul. The 'other spirits' are the angels, whose existence is taken, not as provable by experience, or to be argued from the nature of things, but as a fact of faith. For the mode of union between soul and body there is here set forth the Aristotelian 'entelechy,' or 'form,' the only doctrine tolerable in the light of biology, at the same time a doctrine upon which the soul's immortality is more difficult to argue than upon the opposing Platonic position. Unlike Plato, 'our masters' do not undervalue the importance of sensory knowledge. So strongly indeed do they insist upon it that they have extreme difficulty in making out how a sheer intellectual being, a pure spirit, whether an angel or the disembodied spirit of a man, can apprehend anything of this sensible world. And this is their way out of the difficulty, by what the Abbot calls 'the Scholastic principle of Angelic cognition': 'A spirit comes into existence with the knowledge of all material, created things, and their laws and the result of the laws, *in infinitum*'. There might be a difficulty about the bad angels; but he goes on: 'The lost spirit is not deprived of this action of God on the created intellect. It is not grace, it is nature; and nature has not been diminished in the lost spirit. This is what our masters mean to express by saying that spirits receive their knowledge, not from the thing that is, but receive it direct from God' (p. 337).

A very large statement! the proof offered is that created matter, with its awful complexity, cannot be taken to transcend created mind. It transcends the human mind but is caught up by the angelic. The Abbot adds (p. 109): 'every human soul, the moment it is separated from the body, has a full and complete knowledge of the material Universe and its laws'.

The above is no statement of Catholic faith, but of philosophic opinion in the Middle Ages.

It is wonderful how voyagers on the sea of speculation, purposing no such termination to their voyage, are sucked into the maelstrom of Kantism. We are far from saying that this has been the fate of the Abbot of Buckfast. But when he claims for a spirit 'total freedom from the laws of space and time,' and says that 'a spirit not only moves freely within space, but he is absolutely superior to space. space is non-existent to him,' we are tempted anyhow to compare Kant's doctrine that Space and Time are forms of objective Nature, not in itself, but in its relations to the embodied human mind. Further to the same effect we read in the chapter on 'The Soul's Place in the Universe' that, alone of all spiritual beings, the human soul in its union with the body has and can have experimental knowledge of the physical Universe. Thus the glorious beauty of a forest in the July sunshine, as my eye sees it, is not seen by the angel at my side: it is my property, not his, even though his view of the scene be far superior to mine. A pregnant saying on the Relativity of Human Knowledge.

On 'spirit-penalty' the Abbot writes cautiously (p. 216): 'Every Catholic has to believe in the physical reality of material elements which are called Hell-fire. . . . A material thing, in opposition to a spiritual thing, has some share in making the spirit unhappy. Catholic belief does not go beyond this very simple concept. The mode in which the material element is afflictive and punitive for a purely spiritual being, is entirely a debatable matter among Catholic divines.' Would not the said divines unite in going one step farther, and insist that the pain caused to the unhappy spirit by this material environment, whatever it

be, is a pain most properly expressed in human language by the words 'fire' and 'burning'?

It will be seen that *The Human Soul* is a thoughtful and interesting work, declarative on the whole with fidelity of the grand conceptions of the mediæval Schoolmen. We hear nowadays much of Mind, but little enough of Soul. In words that remind us of Socrates's dying speech to his judges, the Abbot wistfully concludes:—

'And now, dear reader, who may have had patience to follow me so far, I must take leave of you; and, whosoever you are, I must remind you once more that, to say the least, the odds are a thousand to one, that there is in you something marvellously great, something which you cannot understand, something that is at the bottom of all your pure and noble aspirations, something that is the home of conscience and duty: it is your soul. May it be your life's task to save that soul of yours, because the loss of it could not but be great, as the soul is so great.'

Bergson for Beginners: A Summary of His Philosophy. With Introduction and Notes. By DARCY B. KITCHEN, M.A. Second Edition. George Allen & Co., 1914.

It is possible that the true reason of the extraordinary success of Bergson, and the widespread interest in his teaching, is due to the fact that he has expressed for us what we have all for a long time been more or less unconsciously feeling, and which we could not ourselves have expressed and perhaps would not have dared to express even if we could. If this is so there has happened in philosophy what has happened over and over again in human history—a leader has arisen to give expression to a revolution, and not till he has arisen have we realised that the time was ripe for change. Bergson stands for a new movement, a new direction, a new ideal in philosophy.

The result of this wide interest in Bergson is the rapid call for a second edition of Mr. Kitchen's *Bergson for Beginners*. It is a curious title, slightly misleading, and in a manner provoking. It seems to suggest the sort of school book, *Reading without Tears*, *Little Arthur's History of England*, *Play Grammar*, and such like, for which in our school days we felt such unbounded contempt. But this is quite wrong; Mr. Kitchen has not attempted to do anything of the kind. *Bergson for Beginners* is not Bergson written down for the nursery or the schoolroom. It is clear from the very interesting introduction which surveys the problem of modern philosophy and discusses in particular the views of Prof. Ward in *Naturalism and Agnosticism* and *The Realm of Ends*, that the "Beginners" for whom the author is writing are students well versed in philosophy and quite familiar with its classics. What he has done is to give a very succinct and clear summary of the argument in Bergson's principal works. Now no one surely begins a study of a great work by a study of a synopsis of it—he is to be pitied not congratulated if he does—but a synopsis is invaluable to the student who has studied the original. So it seems to us that this book is of very great value. It is a summary of Bergson's philosophy made with great care and very clear, but curiously disproportionate. Thus 110 pages are devoted to an analysis of the argument of *Time and Freewill*, while only thirty pages altogether deal with *Creative Evolution* and these only discuss the comparatively easy two first chapters; the great metaphysical doctrine of the third and fourth chapters is hardly touched upon.

The omission is noticed by M. Bergson himself in the letter which he has allowed to be published in the front of the author's preface and which

gives a valuable and important recommendation to this second edition. In this letter M. Bergson expresses the admiration, which all readers of the book will share, for the author's talent for exposition and reassures him in regard to his anxiety lest that exposition may have been "marred possibly by misunderstandings," adding that he, M. Bergson, has truly found no errors of interpretation. Probably Mr. Kitchen will be the first to acknowledge that the credit of this belongs rightly to M. Bergson himself rather than to any merit in his interpreter, for Bergson is of all philosophical writers the least easy to misunderstand.

It seems to us rather a pity that this second edition should have had added to it brief summaries of M. Bergson's own recent popular expositions or applications of his philosophy, such as the Huxley lecture and the Presidential address to the Society for Psychical Research. As Mr. Kitchen remarks on page 239, in his summary of the Bologna address, "Bergson's discussion does not lend itself to shortening". It is difficult to believe that any student can really want it. It would have been much better to have supplied the omission noted above and have given a good summary of the metaphysical argument in *Creative Evolution*.

In a note on page 248 a saying is attributed to the present reviewer which he does not recognise and which certainly is a curious distortion of anything he was minded to say. He suspects that he was giving expression to the same remarkable fact that the author so well brings out in this book, the fact that the fundamental principle of Bergson's philosophy is clearly enunciated in his first work and that his other books apply that principle to other and wider problems. This should not be twisted to mean that the principle is stereotyped and has itself undergone no development, much less that Bergson himself discovered his philosophy twenty-five years ago and has not changed an opinion since. But this is a trivial matter.

M. Bergson's description, printed on the wrapper, "It is a simplified survey, remarkably well done, of the whole of my works," is a recommendation we can thoroughly endorse.

H. W. C.

Prestige: A Psychological Analysis of Social Estimates. By Lewis Leopold. T. Fisher Unwin. 8vo. Pp. 352.

It is difficult to convey any accurate idea of the contents of this book within the compass of a short notice: for Mr. Leopold's subject, somewhat elusive and indefinite as it is, allows him to follow a considerable number of different investigations, any one of which would supply adequate matter for an extensive treatise. His book suffers from the lack of a definite plan, and in consequence his treatment of his subject is somewhat inconclusive and inconsecutive. But as the book is apparently designed rather to stimulate thought than to establish conclusions, the author's intentions may be achieved: for it undoubtedly contains a great deal of suggestive analysis of socio-psychological phenomena. But the combination of this protracted analysis in Parts I. and II., with, in Part III., miscellaneous illustration from social facts of the problems raised earlier, is calculated to repel any but the most indefatigable perusal; —and readers must be had if thought is to be stimulated.

Prestige, as a social fact, is part of that mysterious content of Society which is independent of the logical processes of individual minds. No social group of any kind, as Mr. Leopold points out, exists or ever has existed, where such absolute equality reigned that identical words or actions on the part of different individual members of the group produced

identical psychological consequences : and it is to the psychological factor which differentiates between the consequences that we give the name 'prestige'.

Obviously an analysis of this socio-psychological phenomenon, its genesis and influence in forming and controlling social estimates and in creating social values, would be both interesting and useful. Mr. Leopold discusses its psychological conditions and manifestations at length, and his analysis of its relations to the phenomena of self-consciousness and sub-consciousness, of will and purpose, is both searching and suggestive. But he seems never to arrive at a generalised concept of its social significance, and its place in the social order—indeed he seems deliberately to avoid *any* generalisations from his elaborate but rather disconnected analyses. The conditionality of the possessor or the recipient of prestige,—the difference between Prestige and Authority,—these matters he handles with discrimination and judgment. But the reader's reflection is not directed into a consistent and connected train of thought, for his attention is not held to a single and definite line of argument.

While the pyschologist may find the book a mine of ideas capable of inspiring profitable investigation, the sociologist will be disappointed if he expects a connected account of Prestige as a social factor. In Part III.,—"Prestige as a Regulator of Social Conduct."—Mr. Leopold aims, to use his own words, only at illustrating some of its manifestations in the various phases of social life and action, without proving any law. This renunciation of any attempt to generalise conclusions which would colligate the vast mass of phenomena which are surveyed under such headings as 'Prestige in Economic Life,' 'Prestige and Brute Force,' 'The Prestige of Intellect,' may disarm criticism : but it certainly makes the book less readable, and, we might add, less useful.

J. W.

The Algebra of Logic. L. Couturat. Authorised English translation by L. G. Robinson. Preface by P. E. B. Jourdain. Open Court Publishing Co. Pp. xiv, 98.

This is a translation of Couturat's well-known *L'Algèbra de la Logique*. It is provided with some useful notes and with a preface by Mr. Jourdain. In the preface the relation between modern systems of symbolic logic and Leibniz's views is pointed out. The work of Frege, Peano, and Russell corresponds in the main to the Universal Characteristic, that of De Morgan, Boole, and Schröder to the Calculus Ratiocinator. Of course the two are always combined in various degrees ; and it is a particular merit of Russell's synthesis of Frege's and Peano's notations that it produces something that provides at once symbols for the entities discovered by Frege's penetrating analysis and a method of symbolic reasoning which can be used much more easily than Frege's rather cumbrous notation. Couturat's book falls definitely on the Calculus Ratiocinator side, *i.e.* it does not trouble very much about a philosophic analysis to discover the ultimate logical entities, but prefers to treat symbolic reasoning as an intrinsically interesting kind of algebra.

The notation used is practically that of Schröder. The present work does not deal with the logic of relations, but may rather be regarded as the fullest development of that comparatively small part of logic which is treated (very imperfectly) in the traditional doctrine of the syllogism. In the body of the book I do not consider that the distinction between a propositional-function and a proposition is very clearly shown ; it first

appear in the propositions which Russell denotes by $(\exists x)$, ϕx and (x), ϕx which are given in Schröder's sum and product notation. But in the preface the distinction is quite clearly pointed out by Mr. Jourdain, and this gives the translation an advantage over the French original.

This work deals both with the calculus of classes and with that of the corresponding propositions. It deals with Boole's Problem, Venn's Problem, Jevons's Logical Machine, and the tedious but exhaustive method of Poretski, which bears a striking resemblance to some of the problems which Leibniz dealt with.

The translation is well done, and the work can safely be recommended as a good introduction to symbolic logic for students, and as supplying interesting occupation for those who enjoy dealing with symbols for their own sake.

C. D. Broad.

The Psychology of Insanity. By Bernard Hart, M.D. (Lond.). Cambridge: At the University Press, 1912. ("Manuals of Science Series.")

This small volume of 176 pages is in every respect an admirable introduction to the study of Insanity. The writing is exact and clear; the standpoint is perfectly definite; the selection of points for exposition is obviously informed by the latest speculations. The purpose of these "Manuals of Science" is rather to furnish an orientation to the beginner than to discuss doctrines exhaustively, and this purpose the present volume effectively fulfils. After a very short history of Insanity, Dr. Hart details the "psychological conception of Insanity,"—guarding himself carefully against the need for justifying "the ultimate relation" of mind and brain. He explains the dissociation of consciousness, the nature of "complexes," now a favourite word in morbid psychology, and he gives such an account of "conflict" and "repression" as to make the further study of the Freud school easily intelligible and interesting. He has chapters on projection, the irrationality of the lunatic, phantasy and the significance of conflict. As a presentment of the concepts now dominant in morbid psychology, this compact volume deserves the attention of every student of Insanity; all the more in that the Author is careful to distinguish between fact and speculation.

W. L. M.

St. Columba: A Study of Social Inheritance and Spiritual Development. By Victor Branford. With a frontispiece by John Duncan, A.R.S.A. Edinburgh: Patrick Geddes and Colleagues, Outlook Tower. Pp. 83.

Mr. Branford's essay is, in his own words, an attempt to reinterpret old and familiar phenomena in the phrasing of current science: and he makes the story of St. Columba a peg on which to hang some interesting elaborations of the socio-psychological theories of Le Play and Prof. Geddes. St. Columba he finds to be an admirable example of an occupational social type, the pastoral: and he traces in his missionary work the realisation of the ideals and inspirations which formed the warp and woof of his social inheritance as the scion of a pastoral people. Mr. Branford does not confine his attention to Columba alone: but analyses the whole psychology of sanctity from the sociological point of view. The essay is interesting and ingenious, if not always convincing: but it well repays perusal: while the format and typography of the booklet leave nothing to be desired. The proceeds of its sale are to be devoted to the movement for the erection in Edinburgh of a statue in commemoration of St. Columba.

J. W.

Ambidexterity and Mental Culture. By H. MACNAUGHTON-JONES, M.D., M.Ch., etc. Illustrated, London: Wm. Heinemann, 1914. Pp. 102.

This little book brings together a large amount of interesting material on ambidexterity. It is well illustrated by practical examples of writing, drawing, etc. The Montessori methods receive a chapter. Dalcroze's system of "Eurythmics" is also presented. "I anticipate a time when it will no longer be rare to find the two-handed man or woman worker equally proficient in execution with both hands. When this advance has been made, there will be a corresponding gain to the mental side of life. The alternating or synchronous action of the dual-sided brain, left and right sides equally co-operating with the associated arm and hand, and equally educated in their functional powers and uses, must have its psycho-physical influence on the individual" (p. 98). The little volume is a good introduction to an important subject.

W. L. M.

Sexual Ethics, A Study of Borderland Questions. By ROBERT MICHELS, Professor of Political Economy and Statistics at the University of Basle, etc. "Contemporary Science Series." London: The Walter Scott Publishing Co., 1914. Pp. xv, 296.

This is a new volume of the "Contemporary Science Series" edited by Mr. Haverlock Ellis. Prof. Michels's point of view is much the same as that already made familiar to us in the more elaborate works of Mr. Ellis. The present volume concentrates itself on current borderland questions. The discussion is direct, lucid and well documented. The author is well qualified both from his international connexions and special studies to deal with a subject so fundamental. The volume is a valuable contribution to the most difficult of all social questions.

W. L. M.

Mental Diseases, A Text-book of Psychiatry for Medical Students and Practitioners. By R. H. COLE, M.D. (Lond.), M.R.C.P., Physician for Mental Diseases to St. Mary's Hospital. London: University of London Press. 52 Illustrations and Plates. Pp. x, 343.

"In this volume," writes Dr. Cole, "I have endeavoured to delineate the salient features of our present knowledge of psychiatry in as concise a manner as possible." It may at once be said that the endeavour has succeeded. The book is well arranged; the composition is exact; the materials are carefully selected for their purpose; the theories are "up-to-date," and the illustrations both coloured and uncoloured are well produced. The book is at once compact and comprehensive.

W. L. M.

Diseases of the Nervous System—For the General Practitioner and Student. By ALFRED GORDON, A.M., M.D. (Paris), Late Associate in Nervous and Mental Diseases, Jefferson Medical College. Second Edition, revised and enlarged; with 169 Illustrations. London: H. K. Lewis, 1914. Pp. xiv, 618.

This well-arranged and well-printed text-book deserves the success indicated by this second edition. There are many minor additions.

Psycho-analysis receives effective recognition as a method of treatment. The book is among the best of the practical text-books.

W. L. M.

Our Eternity. By MAURICE MAETERLINCK. Translated by ALEXANDER TEIXEIRA DE MATTOS. London: Methuen & Co., 1913. Pp. 243.

This volume is an enlarged version of M. Maeterlinck's *Essay on Death*, incorporating his conclusions regarding Theosophical and Spiritualistic hypotheses. He leans towards the hypothesis of the continued existence of a modified or progressive consciousness. All is a matter of knowing how we propose to look at infinity; but we have to resign ourselves to living in the incomprehensible, and even to rejoice that we cannot go out of it, as otherwise we should have to curse the fate that had placed us in a universe proportionate to our intelligence. The translation is well done.

D. M.

La Philosophie et la Sociologie d'Alfred Fouillée; avec biographie, portrait et extraits inédits. Par AUGUSTIN GUYAU. 1 Volume in octavo. Paris: Felix Alcan, Editeur, 1913. Pp. xx, 242.

To make a comprehensive survey of a complete philosophic system within brief limits, even if the survey be restricted to the system's more important principles, is not easy: and to make it readable, even in a scientific way, is almost impossible. But M. Augustin Guyau has attained as nearly to success as the circumstances admitted in the filial but difficult task he set himself, to form a précis, as it were, of the teaching of Alfred Fouillée and his theory of "Idées-forces". Fouillée drew up for his grandson, when the latter was a student, a synopsis of the leading points in his own philosophy: and upon the synopsis, and on M. Guyau's own recollections of the philosopher's conversation, this work is based. For a closer acquaintance with the conception of the "Idée-force," the student must of course go to Fouillée's own published works: but M. Guyau's book supplies a clear account of the philosophic application Fouillée made of it, and its sociological and even cosmological elaboration.

Fouillée's philosophy, says M. Guyau, is a constructive and comparative one, destined to include and reconcile all philosophic ideas: but it is not mere eclecticism because it is based on a definite and regular rule of choice. Its purpose being to explain the reality of our own experiences, he finds that explanation in the reality—the creative reality—of the idea. Thus we have a synthetic method capable of reconciling the most contradictory results of the analysis of experience, and of forming a basis of a comprehensive and consistent philosophic system. For if we reconstruct with the greatest possible coherence contradictory laws, we can insert ideal middle terms between their contradictions, we can construct mental equivalents of their relation: and thereby arrive at a subjective reality which makes a satisfactory basis both for system of thought or method of conduct. We have, for instance, the metaphysical idea of liberty between Free Will and Determinism: and this middle term—this substitute or equivalent for reality, or "Idée-force"—may be analysed in its influence on the individual, society, the world, and judged accordingly.

The resemblance to the Pragmatic theory is obvious: but between the philosophy of the "Idées forces" and Pragmatism, Fouillée claims an essential difference, based on what he considered the latter's uncritical acceptance of any subjective feeling or desire as a concomitant of ex-

periential reality. How far the distinction holds good would be interesting to discuss, but space does not admit of our noticing the point. We may however mention Fouillée's application of the "Idée-force" theory to one branch of Science, Sociology, as illustrating its advantages and disadvantages.

Here it certainly has an admirable field for the exercise of the conciliatory qualities claimed for it by its expositor. The sociological field has long been the battle-ground of opposing schools of thought—the thinkers who would explain its phenomena objectively as the results of physical influences, race, soil, climate, heredity, etc.: and those who seek a subjective interpretation in terms of human nature, utility, choices, ethical imperatives. If the "Idée-force" theory could reconcile these two extremes, and systematise the whole range of social phenomena as the results of a single agent or motive in social consciousness, such as Imitation in M. Tarde's Sociology, it would deserve all the credit that is claimed for it. But its success is at least equivocal. The "Idées-forces" in social consciousness are not easily to be classified as the results of a unique principle in human society

Fouillée conceived them as the half-involuntary, half-conscious ideals and desires which are part of the individual's social inheritance, and which form the foundation of society's solidarity and of its collective consciousness. For example, he held that the continuous existence of any society, its solidarity in the widest sense of the word, depended on the idea of justice, of mutual reciprocity and obligation, not only to our own generation but to the past and the future. We are bound, by the implicit contract on which society rests and which we recognize and accept by our actions as citizens, to right the wrongs created by our forerunners' actions: and we hand down to posterity the duty of redressing, if necessary, by a reparative justice, the consequences of our own. The idea of justice is, then, one of the "working ideas" which has directed and influenced social evolution. The idea of justice has not only created the whole vast social machinery of law, but influences our social choices aud actions at every turn.

A complete catalogue of "Idées-Forces," a study of their evolution and influence, and a classification of them in reference to a dominating principle of social consciousness, if there be such a principle, would be an original and useful contribution to theoretical Sociology. It is for future students of the subject to build upon the foundations laid by Fouillée: and its ultimate effect upon sociological theory can only be as yet a matter of conjecture. Still the Sociology of the "Idées-forces" already supplies us with an original and systematic way of regarding the data of social experience: and Fouillée's place among the French thinkers whose work is by far the most interesting and original part of modern social science is a distinguished one.

M. Guyau has, as we have said, di charged a difficult task with skill and considerable success. His work from its very nature makes succinct description, or even discussion, impossible: but it will doubtless realize its author's purpose—"à rendre accessible à tous la pensée du mâitre et en preparer l'etude à ceux qui, abordant les problèmes philosophiques, y rencontreront desormais le grand nom de Fouillée".

J. W.

L'Étude Éxperimental de l'Association des Idées dans les Maladies Mentales. By Drs. Aug. Ley and Paul Menzerath. Gand, 1911. Pp. 199.

This book is based on experiments upon thirty-six subjects suffering from various types of mental diseases. The authors found that many

symptoms and tendencies could be discovered by means of association experiments which could not have been found by any other method, and they testify especially to the value of the introspections of the subjects. These seem to be somewhat meagre, as one would expect, when compared with the introspections of normal persons, though some authorities claim that the introspections of the mentally afflicted are not necessarily any less *reliable* than those of healthy individuals.

The authors emphasise the fact that the lengthening of the association reaction time may be due to causes other than the existence of a "complex," *e.g.* to the rare employment of the stimulus word, to its abstract nature (adverbs, numbers, etc.) or to a mental state which one meets especially in some psychasthenic patients consisting of an exaggerated desire to give intelligent answers.

Complete forgetfulness of the reaction word was sometimes discovered immediately after the reaction, especially where the existence of a "complex" was suspected.

A brief summary of inferences follows the records of experiments on each patient, but there is little in the way of broad discussion of psychological theory. A bibliography is appended of one hundred and sixty-four articles and books bearing on the subject.

C. W. VALENTINE.

Les Maladies Sociales. By PAUL GAULTIER. Paris: Librairie Hachette et Cie, 1913. Pp. vi, 270.

This small volume deals with adolescent criminality, alcoholism, de-population, pornography, and suicide. The titles of these divisions of the volume are sufficient to indicate the substance. The author is profoundly impressed with the national danger of de-population, but finds ground of hope in the fact that the restriction of population is not biological, but voluntary. His remedies are on somewhat commonplace lines; but possibly, all real "remedies," if there be such for the given phenomena, must be commonplace. The book is excellently written and the references are more than sufficient to make it a genuine introduction to the study of all the problems named. In the discussion of "the plague of de-population," the standpoint is the contrary of that taken by Prof. Michels in *Sexual Ethcs.*

W. L. M.

Über mathematisches Denken und den Begriff der aktuellen Form. Dr. LEONID GABRILOVITSCH. Berlin: Leonhard Simion. Pp. 92.

This little book deals with the relations of Logic and Mathematics. It has the rare merits, for a German philosophical work, of conciseness and clearness. Taking such work as Hilbert's on the foundations of geometry and Russell's and Whitehead's *Principia Mathematica* as texts, Dr. Gabrilovitsch seeks to determine precisely what is merely defined by postulates and what must actually be known in itself. Thus in Hilbert's work we have no need to have any notion of points or lines or planes except as things that are connected with each other in certain definite ways; and again the particular system of axioms which Hilbert lays down is not necessary. But of course all the reasoning about these things is conducted logically; and the question arises: How much in symbolic logic itself can be treated as merely defined by arbitrary (though consistent) axioms, and how much must be assumed to be actually known in itself? It is of course clear that both certain entities and certain laws of connexion will have to be known, and not merely arbitrarily defined, if symbolic logic itself (and therefore all the sciences that use it) is not to be wholly arbitrary.

In the present work Dr. Gabrilovitsch is concerned rather with entities than with laws. He enumerates several which must be known and not merely defined by postulates if logic is to proceed at all, and then he devotes himself to showing how such knowledge is possible. Thus he holds that before we can begin a symbolic calculus at all we must know what is meant by Identity, Difference, and Order. Unless we do this we shall not, for instance, understand what is meant by the same symbol standing throughout our reasonings for the same entity, or different symbols for different ones. And again we shall not, unless we already have a notion of order, understand the difference between $p)q$ and $q)p$, or see how, when these are significant, pq) is nonsense.

He argues that the whole object of mathematical development is to replace qualitative concepts by relations, and that mathematical form is an order of contents, and not their existence or qualities. This is an important step in his argument and it seems to me weak. He takes qualities like circular, as abstracted from sensuous experience, and, comparing them with the mathematical definition of a circle by its equation, remarks that qualitative circularity is always vague because a matter of degree, whilst the mathematical definition is precise because it replaces qualities by relations which have no degree. And he concludes from this that the fundamental notions of mathematics cannot be reached by abstraction from instances of them in experience. To this one may answer (1) that some relations have degrees, (2) that it is not obvious that all qualities must be terms in continuous series as colours and sounds are, and (3) that, because some things that are abstracted from sensible experience are qualities, and some qualities are terms of continuous series, it does not follow that relations may not also be abstracted from sensible experience and that some of these may not be perfect by determinate. For instance, difference is a relation, and it certainly holds between terms in sensible experience—wherever else it may hold also; and it is not in the least vague, for the fact that I may judge two things to be exactly alike when really they are different does not mean that I am vague about the meaning of difference. Dr. Gabrilovitsch adds the argument that, if difference were a content like any other, I should have to experience not only a and b and their difference, but also the difference between a and its difference from b, and so on to infinity. But, in the first place, difference no doubt is not a content, *just like* different sensible things, yet the experience of different sensible things may be enough to direct our attention to it. And, when this is admitted, there seems no more need for me to go on to recognise all the infinite set of different differences that are connected with a and b than to recognise anything else in which I am not immediately interested. Moreover it is at least doubtful whether differences do differ; and, if they do not, there is no chance of an infinite regress. There is a and b and difference; and all the possible judgments are 'a differs from b,' 'a differs from difference' and 'b differs from difference'; whilst the difference of a from b is identical with the differences of a and of b from difference.

However, Dr. Gabrilovitsch considers himself forced to account for the origin of our knowledge of difference otherwise than by reflexion on the differences in our experience. He introduces the notion here of Actual Form. The point is that we have a mass of sensible experience which we can go through discursively by a mental act. But at no moment can our discursive act bring the whole of it before us; we are always conscious of the presence of an X to which this act has not as yet applied itself. Now we learn about identity and difference in the distinction between that part to which the act has applied and the remaining X. The former is determinate, *logically* one, and self-identical; and it is different from the remaining X. Also we thus learn of identity and difference as

universal because the limits of the determinate and the X are always shifting, and we see that such and such a proportion between them is irrelevant to the self-identity of the one and its difference from the other. I am quite prepared to accept much that Dr. Gabrilovitsch says here; but I only see in it a special example which may lead us to recognise identity and difference. I do not see that they must be recognised in this way, nor why an act of inspection directed to two determinate objects in the not-X should not equally well make us aware of difference. Nor does Dr. Gabrilovitsch's theory seem to account as well as he thinks for our knowledge of the universality of identity and difference. How will the fact that the X and the not-X are certainly shifting their boundaries show that difference ever holds between two determinate parts of the not-X, and not merely between X and not-X as wholes?

Dr. Gabrilovitsch has some good criticisms on the Marburg school. He points out that, unless the sensuous manifold has some definite constitution of its own, it is inexplicable how relations which are purely the products of thought can apply to some parts of it and not to others. He then goes on to argue that logic really presupposes a knowledge of the meaning of number as well as of identity and difference. You must know what you mean, *e.g.*, by treating a complicated expression in brackets as a unity. But he admits a difference between this logical unity and the 1 of arithmetic. On his view the number series arises by applying the actual form to itself. First we have not-X opposed to X, *i.e.*, one (in the logical sense) opposed to another. But then we can consider this application with its two sides as a content and oppose to it another X. This content will be a not-X and a logical unity. But it is now recognised as being a unity with two terms, and it itself is the number 2, while the parts are arithmetical 1's. He compares this with Jevons's theory of numbers, which make 2 a difference, and 3 a difference of two differences, and so on. It seems to me that both theories err by giving as the *number itself* something that *has* the number.

By this procedure Dr. Gabrilovitsch produces the number series, and is able to see that it has no last term. And, by accepting Helmholtz's theory that arithmetical operations are applications of counting to the number series itself, whilst rejecting the view that the series itself is merely arbitrary, he professes to prove the principle of Mathematical Induction. The book is an interesting one and contains many acute criticisms; but I doubt if it makes out its point.

C. D. Broad.

Untersuchungen zur Logik der Gegenwart. Von Prof. Dr. Wilhelm Koppelmann, Privatdozent a.d. Westphäl. Wilhelmsuniversitat. I. Teil. Lehre vom Denken u. Erkennen. Berlin: Verlag von Reuter u. Reichard, 1913. Pp. v, 278. M. 6.50.

The present volume is a first part, dealing with the principles of thought and cognition, to be followed by a second part treating of formal logic.

Erkenntniss-lehre is described as asking the question: "To what conditions is cognition subject, and what are its limits?" Formal Logic is the theory of the conditions which govern the linguistic interchange of thought. The two together constitute Logic as the science of correct thinking. To think is to set in order (*ordnen*).

Here we have almost wholly a study in Erkenntniss-theorie; and it has interest as an extremely characteristic example of this attitude. The author intentionally attaches himself to the movement which began with Locke, and culminated in Kant. Only the last of his eight chapters discusses the logic of inference, refuting Mill's account of the ground of Induction at a length now surely quite unnecessary, and distinguishing

the forms of Induction corresponding to the different sciences. The only novelty, I think, lies in attaching physical experiment to the doctrine of the continuum, by pointing out that in correlating, say, heat and expansion, you have not a single case, but already an infinity of cases. The theory of Deduction, stated in four or five pages, reduces it to two forms of inference, one of which applies to a case the condition which every judgment is construed as laying down, and so concludes to the conditioned; the other excludes alternatives from a limited list and accepts the unexcluded. "Formal" Logic contains only various expressions of these thought-processes, whose variety is due to the defects of language. The seventh chapter discusses the "modality of cognition" (not of judgment) and is mainly concerned with the distinction between sciences which do and which do not admit of ideal completion. So far as I can see all the great sciences come under the latter head, and none under the former but the establishment of the shapes of spatial objects.

But the bulk of the volume (chaps. iii.-vi. inclusive) is occupied by the author's construction of *a priori* law, according to his Kantian view that cognition is possible only through the conformity of the object to our knowledge, and extends only to "*our* reality". This conception of *our* reality, sharply contrasted with any reality which might be *an sich*, and *ohne unser zutun*, is I think the most remarkable thing in the book. Whatever seems to the author absurd or unthinkable is relegated to a possible *an sich*, the object of a possible Metaphysic—I am not sure whether he really thinks there could be such a science.

He has pointed out, in his first chapter, the failure of other forms of *Erkenntniss-theorie* to show any ground why reality, considered as existing *ohne unser zutun*, should take any account of the necessities of our thought. Empiricism, Rationalism, Biologism, all make shipwreck on this rock. But his own position, which provides our *zutun* in the conditions of our cognition, surely partakes in the common failure of *Erkenntniss-theorie*. To deny that thought can know things as they are, is to deny the essential nature of thought. To make a bridge by saying that things conform to thought, generating an anthropological reality (p. 217), is merely to mix or colour the reality with the psychical features of a certain animal species, and is none the less to deny to thought its true and direct function of knowing its object. It is the vice which *Erkenntniss-theorie* cannot escape, when its question is stated as above.

But in execution, of course, the failure may be mitigated. Under the head of conditions of *our* thought and of *our* reality, due to *our zutun*, one may find a quite tolerable analysis of the thinkable characters of a universe. The chapters to which I referred (iii.-vi.) are clearly and methodically written, and make a fair show of deducing from the requirements of our knowledge, and especially from the possibilities of the construction of reality,[1] most of the principal laws which govern scientific method—the laws of number and measurement, of space and time, including causation, and the presumptions of teleology. It is clear, I think, that the appeal is frequently to what on the whole is thinkable, and the limitation to *our* reality, though constantly insisted on, becomes altogether arbitrary. For instance, a thing is exactly like, or the same (*gleich* not *ähnlich*) when it has the same qualities under the same conditions. This is simply and solely because *we* can only recognise same-

[1] The author lays stress on a distinction between the necessity of thought, and the necessity of our constructive science, and appeals to the latter, as belonging to *our* reality, while professing indifference to the former. I do not see how the distinction can hold. The law of causation is for him such a law of construction; but his proof of it (p. 165) is an argument appealing to what is thinkable.

ness by the sameness of perceptible qualities. If we speak of the same (*gleich* "in itself," we cannot possibly lay down any rules for its behaviour. It might be like Proteus, changing without a change of conditions. (I do not agree that Proteus did so; the failure of previous struggles was a new condition.) This is "a proposition which holds *a priori* for the whole province of reality" (p. 75). But it "says nothing at all of identity and difference 'an sich'". Is not the distinction futile?

The author holds unusual views in many ways. He supports Croce against Logistic; he casts doubt on the whole evolutionary theory of descent (not merely on Natural Selection); he assumes an unthought datum of perception (against the Marburg neo-Kantians); he denies the possibility of a SelbstZweck on the ground that action directed to it must be action without an interest; he seems to favour some sort of voluntary creation as at the root of the original physical universe (p. 197); he attacks Husserl for Psychologism, because he calls "evidenz" an *Erlebniss*; and his views of deductive inference we have already noted. He deals at some length with matters of scientific theory, for example with the problem of a single time-order in the universe, the difficulties of which he considers merely practical and not ultimate. The book is interesting, and something of an oddity.

BERNARD BOSANQUET.

Ursache und Bedingung: Widerlegung des Konditionalismus und Aufbau der Kausalitätslehre auf der Mechanik. GUSTAV HEIM. J. A. Barth. Pp. 62.

This pamphlet criticises the views of the physiologists Verworn and v. Hansemann on Causation. Verworn wished to replace the notion of cause by that of condition. He argues that all conditions are equally important and that they are not mutually substitutable. The author replies that importance is quantitative and necessity not; and that it is impossible to argue that, because all conditions are necessary, they are all equally important. And he gives examples where substitution seems possible. His arguments here seem to me sound; it is clear that, if you take a limited and abstract effect (as you must to make any use of causal laws), it may have various conditions.

Heim admits the difficulty of distinguishing between cause and conditions; but he undertakes to do it. He takes the case of a billiard-ball hit with a cue and concludes that the genuine cause is the moving arm and cue, because these produce all the further changes. Friction, elasticity, etc., are conditions which determine the subsequent effects produced by the moving ball, whilst there are of course preconditions and causes of the motion of the arm. I do not see that Heim makes out his case here. In the first place the energy in the blow (in the mechanical sense) does not determine the direction. Again the path of the ball surely depends also on the question whether the table is level or not. Heim would probably call this a subsequent cause that acts on the ball; but then there is no interval between its action and that of the cue, and Heim fails to notice that a causal process cannot be divided up into contiguous events, owing to its continuity. The essence of the distinction between the blow and the other conditions seems to me to be this. *No* combination of the other conditions produces any kind of motion without a blow, but a blow nearly always produces some motion however the other conditions be filled in. Now the other conditions are often fulfilled apart from a blow, but a blow never exists without some of the other conditions being filled in somehow. Thus we come to take the blow as more directly concerned with the motion than the other conditions. Heim approaches this

position in his account of why he calls the tubercle-bacillus the cause of consumption, and such factors as bad ventilation only conditions.

The author holds that the same cause will always have qualitatively the same effect, whatever may be the conditions; and that this is a distinction between causes and conditions. This constancy is certainly the essence of any law, causal or otherwise. What he should further have noticed is that the notion of same cause and same effect involves that both are abstract; the further filling in of the detail of the effect is due to a further filling in (itself abstract) of the detail of the cause; and the relations between these two sets of abstract details, taken by pairs, are themselves unconditional in a true causal explanation. Thus no ultimate distinction between cause and condition is reached from these considerations.

He rejects the view that the cause is quantitatively equal to the effect, but holds that it is proportional to it. This he is able to do, he thinks, because he takes, in mechanical examples, a force as cause and the work done as effect. He further uses the word *work* for all changes that are effects. To this argument there are two objections. (1) *Unless* you can reduce all interactions to pure mechanics it is not clear what will be the measure of work in the wider sense in which he uses the term. (2) There is a difficulty even in mechanics. He rests his assertion on the equation $W = Fs$. But suppose the force is variable. Then we only have $dW = Fds$. He must then either admit infinitesimal causes and effects, or, if he takes the integrated form $W = \int Fds$, give up his rule of proportionality as universal, even in mechanical transactions. All attempts to discover a uniform quantitative relation between cause and effect in general seem to me in fact to be quite hopeless.

Heim is concerned to show that a cause is never a change but is a thing. He makes some good points against Wundt's opposite view. What I think is true is that a cause is usually taken to be a thing in a certain state. We *say* indeed that a stone breaks a window, but we mean that a moving stone breaks it. And we should hardly say that the motion of the stone breaks the window. Finally he congratulates himself on the absence from his definition of cause of 'mystical or metaphysical elements'. Since an essential element in his definition is that of 'production' of work, and since this obscure notion is nowhere explained, such self-congratulation seems premature.

This little book, as I have tried to show, is somewhat of an amateur effort; there are a great many subtle distinctions needed in dealing with Causality which the author has not noticed; and, even when they are recognised, great difficulties remain. But it is distinctly interesting, and the examples from medical facts—so unusual in philosophic writings—give it a certain freshness.

C. D. Broad.

"Sitzungsberichte der Kais. Akademie der Wissenschaften in Wien Philosophisch-Historische Klasse," 170 Band, 10 Abhandlung. *Andreas Fricius Modrevius. Ein Beitrag zur Geschichte der Staats- und Völkerrechtstheorien.* Von Wladislaus Maliniak, Juris publici doctor. (Vorgelegt in der Sitzung am 13. März, 1912.) Wien: In Kommission bei Alfred Hölder, k.u.k. Hof- und Universitäts-Buchhändler, Buchhändler der kaiserlichen Akademie der Wissenschaften. 1913. Pp. 200.

Problems of concrete politics peculiar to the time and place are responsible for so much in the political speculation of Polish writers in the sixteenth century and earlier, that although accessible in Latin it has been largely ignored or misunderstood. It is however this intimacy of its relation

to actual, if evanescent, issues that seems likely to lead to its rehabilitation. The *de Republica Emendanda* of the publicist, also distinguished as a theologian, whose position in the history of ideas the patriotism of Dr. Maliniak has undertaken to determine, is apparently the most significant of the endeavours of Polish thinkers to theorise in the midst of constitutional struggle. It appeared in 1551, was as Dr. Maliniak notes, notably free from scholastic influences, and went straight to Aristotle and to Cicero, though adopting little of the teleology of nature which characterises these writers, and regarding the state more individualistically. The more striking differences from the *Politics* and Cicero are, it would seem, the result of historical conditions. On the forms of constitution, on slavery, on war and—most modern of thoughts—arbitration, there is obvious divergence from the models. The question of the rights of the different orders is a living one for Modrevius. In maintaining equality of all before the law, specially in regard to the death penalty, Modrevius has been held to have anticipated the doctrine of the revolution. But Dr. Maliniak is doubtless right in maintaining that there is no attack on the existing demarcations of caste or class. Modrevius's views of reform are conditioned by his period and his *provenance*. The 'execution' party do not appear to have contemplated popular legislative activity, and Modrevius is no exception. That, like Laski and others, he proposed relief from the burden of taxation by eliminating exemptions, and redress from oppressions by the impartial administration of law, stamps him as a reformer, though on conservative lines. That he reflected on the underlying principles with a sufficient independence of authority to use the political theory of Aristotle, little favoured by the schoolmen by the way, without parroting it, gives him some status as a thinker. The Protestant reformation in Poland was so discreditable in some of its motives and activities that it is pleasant by way of contrast to turn to the practical philosophy of this always sincere, if not always very original, advocate of progress.

HERBERT W. BLUNT.

Der Pragmatismus von James und Schiller, nebst Exkursen über Weltanschauung und über die Hypothese. By Dr. WERNER BLOCH. Leipzig: Verlag von Johann Ambrosius Barth, 1913. Pp. viii, 107. Price, Marks 3.

This is a very pretentious, but quite superficial work, calculated to shake any one's faith in the tradition of *deutsche Grundlichkeit*. Its spirit is indicated by its approval of Schinz's declaration that Pragmatism is one of those theories which are outside the limits of philosophic toleration, and "must be strangled in its cradle". The difficulty about this policy would seem to be that the intolerable infant shows a disconcerting tendency itself to play the Hercules.

Dr. Bloch's equipment for his self-imposed task may be gauged by his complaint that he had to search in out-of-the-way corners for the weapons with which to conduct his infanticidal crusade ("das Material aus allen Ecken und Enden mühsam heraussuchen"). His anti-Herculean labours do not appear to have been excessive or even adequate. His very meagre bibliography, his neglect of the controversial literature in MIND, and his very imperfect acquaintance with even the primary writings of the authors he attacks, consort ill with his declared intention of settling this little matter of Pragmatism "once and for all" (p. vi). As a fact, he seems to have read of his authors nothing but *Pragmatismus* and *Humanismus* in the German translations, and even these not very thoroughly. The

fountain-head of Pragmatism, *viz.*, James's *Principles of Psychology*, he treats as non-existent. With fine impartiality he also completely ignores the writings of the English Idealists, which have created the philosophic situation with which the pragmatists have had to deal.

The almost comical self-confidence which accompanies his ignorance warrants a surmise that Dr. Bloch must be a young man. If so, he may live to realise and correct his deficiencies, and to produce work more worthy of serious notice. In making a fresh start he may be recommended to begin with Mr. D. L. Murray's little *Pragmatism*, if he finds the exhaustive history of the whole controversy in Dr. T. B. Muller's *Kennisleer van het Anglo-Amerikanisch Pragmatisme* too serious an undertaking. And it may be added that, if he intends to be thorough, he must not again dismiss as unessential (*cf.* p. 104) the relations of Indeterminism and Pragmatism.

H. V. K.

Sul Pragmatismo. Saggi e Ricerche. By Giovanni Papini. Milano: Libreria editrice Milanese, 1913. Pp. xii, 163.

It is to be feared that this volume will come as a disappointment to those who have looked to Signor Papini to fulfil the promise of writing a systematic account of Pragmatism which he had announced so long ago as 1906. For not only was no such account at that time in existence, and would all parties have agreed that an exposition of Pragmatism by a writer of the purest Latin race and free from all taint of Anglo-Saxonism would be most interesting, but it would have been also specially instructive to see how far Latin logicality would carry the doctrine in the hands of one who had not shrunk from proclaiming the *Uomo-Dio* as the culmination of the remaking of reality by the action of human intelligence. But this great opportunity Signor Papini appears to have let slip; for though the second motive for welcoming what he has to say still holds good, the demand for an intelligent survey of Pragmatism as a whole has been supplied by Mr. D. L. Murray's *Pragmatism* in English, and (more historically and elaborately) by Dr. T. B. Muller's *Kennisleer van het Anglo-Amerikaausch Pragmatisme* in Dutch. Moreover Signor Papini does not even now fulfil his original promise: his book is not systematic and for the most part not new, but composed of reprints of articles he had already published, mostly in the defunct *Leonardo*, between 1903-1911. Nor do the excuses he makes in his interesting preface [1] for disappointing these expectations go far to explain the mystery. He admits indeed, with engaging candour, "undulations of thought, contradictions, *lacunæ*, imperfectly developed hints, too daring dreams and too minute analyses," and claims only a certain unity in spite of "changes and repentances of all sorts," but beyond this he makes no attempt to draw up a balance-sheet of the gains and losses of his spiritual development. The reader is simply left to conjecture in a general way that the experiences of Signor Papini's private life are reflected in his papers, and that the order in which they are published *may* mean that the later are more indicative of his present views.

All therefore that a reviewer can be expected to do is to welcome the republication in an accessible form of the ideas which have made Signor Papini a noted figure in the pragmatic controversy, such as the *Uomo-Dio* ideal which so impressed William James in the delightful article in the

[1] It makes however the curious mistake of placing the death of William James in 1908 instead of 1910.

Journal of Philosophy, iii., 13,[1] and the much-quoted description of pragmatism as a 'corridor-philosophy,' which leads to an 'unstiffening' of all theories. As it is impossible to treat the work as the exposition of a systematic doctrine, I proceed to select for comment a few of Signor Papini's most interesting points. To begin with the *Uomo-Dio*, which is as it were the pragmatic counterpart of the intellectualistic ideal of attaining deification by a union (whether mystical or logical) with the Absolute, it is to be noted that it does not really mean more than the aspiration "to obtain a maximum amount of direct power over men and things" (p. 48). As to how the requisite 'omnipotence' (a term Papini uses as loosely as any theologian) is to be obtained, nothing is suggested but an 'art of miracles,' based on spiritual concentration, solitude, silence, chastity and fasting. It had not apparently occurred to Signor Papini either that these traditional devices are exceedingly likely to generate hallucinatory experiences, or that 'miracles' are excluded from the creed of science precisely because they do not (usually) stand the pragmatic test. The scientific method of augmenting the power of man is (so far) the only one which really works and is pragmatically true.

The attempt to define Pragmatism which culminates in the 'corridor' comparison, similarly fails to bring out its scientific affinities. Pragmatism can be called a 'mass of methods,' and compared to a corridor through which men pass on various quests (p. 82), simply because it is the method of science and its logic is the first successful formulation of that method by philosophy.

There is a certain warrant for conceiving the essential function of Pragmatism as an *disirrigidimento*, an unstiffening of theories and beliefs (p. 77) provided that this is not understood as an invitation to loose thinking and a happy-go-lucky procedure. For Pragmatism 'loosens the knees' of the older theories in a perfectly specific way. It is a systematic protest against the uncritical method of dogmatic assertion, which appears to be so congenial to many philosophers. And to insist on testing the truth-claims of such assertions by the value of their consequences, and to demand a meaning from vague and bombastic generalities, is to subject philosophic speculations to a much stiffer examination than they have hitherto been prepared for. Moreover the *severity* of the pragmatic criterion has in point of fact been felt (and resented) by the more stiff-necked dogmatists all the world over. The apparent laxity of admitting non-rational considerations into the theory of knowledge is merely the result of honesty and conscientiousness in recognising all the factors which are always in fact operative in human thinking and have been excluded only by the arrogant hypocrisy of misrepresenting human as 'pure' thought.

The essay on the Will to Believe may be commended for its keen analysis of the relations of belief, action and reality (p. 136). Signor Papini rejects both the doctrines that to *act-as-if* can induce belief and that beliefs can alter reality. He objects to the former that to act-as-if already implies a desire to believe, and is no creation of beliefs out of nothing. But this is precisely what James indicated by saying that the Will to Believe operates only in 'live options' which appeal to real 'willingness to act,' and it has always been *denied* that the pragmatic 'making of reality' involves 'creation out of nothing'. To the second doctrine it is objected that "faith alone, unaccompanied by corresponding acts," leads to nothing (p. 139). But it is no part of James's doctrine

[1] But it has, alas, availed so little to arrest "the almost complete blunting of the literary sense" of the American philosophy it contrasted with Papini's.

to dispute this. Surely the genuineness of bare faith without acts is precisely what pragmatism casts a doubt upon, when it insists that beliefs must not be divorced from the acts they issue in. To take the tentative act-as-if without the desire to try a belief, and to conceive the will to believe as unaccompanied by a will to act, is in each case a false abstraction which does not recognise the intrinsic connexion between thought and action, and can mean only a recrudescence of intellectualism. The pragmatist is the least likely of philosophers to repudiate the Platonic dictum, ὁ συνοπτικὸς διαλεκτικός; for he puts an end to the long divorce of thought and action by perceiving that they belong inseparably to each other, because every thought is an act, and can only be *understood* as such.

F. C. S. Schiller.

Il Valore Supremo. By Luigi Valli. Genova: A. F. Formiggini, 1913. Pp. 323.

The author of this work discusses values from a positivist standpoint. The supreme value is life itself, for the reasons that it is not a means to anything else, and remains unexplained. Life, however, does not mean that of the individual, which is subordinated to that of posterity. All the other values can be explained, and so are not absolute and improperly ends *per se* ('valori pseudo-proprii'): science discovers their function and disabuses us of the belief in their ultimateness which they have for our (deluded) consciousness. This discovery debilitates them, and gradually destroys also their '*proiezioni*,' *i.e.* the extensions of a valuation beyond its functional utility.

It does not seem however that any of those positions are convincingly established. Why should the discovery that an apparent end is also a means necessarily diminish its value as an end? Does the man who discovers that he must not only eat because he likes it, but also in order to live, usually cease to enjoy his dinner on this account? Cannot an end have a double function, both as a means and as an end? Why again should it be assumed that the value of an end depends on its remaining a mystery and an inexplicability? That an apparent end should turn out to be mysterious and inexplicable, seems to be a reason, not for acknowledging its supremacy but rather for discarding it. How again is science to guarantee this inexplicability? It can only testify that so far no explanation can be given: but that seems a poor reason for exalting such an end above those that seem intelligible. In short Signor Valli's argument, though it justly lays stress on the biological control of our subjective valuations, seems to conduct to the conclusion that values are about the most irrational aspects of a thoroughly irrational scheme of things. It might be more promising to show that, on the contrary, they pervade and generate all 'rationality'.

F. C. S. Schiller.

Received also:—

Bertrand Russell, *Our Knowledge of the External World as a Field for Scientific Method in Philosophy*, Lowell Lectures of 1914, Chicago and London, The Open Court Publishing Company, 1914, pp. vii, 245.

C. D. Broad, *Perception, Physics and Reality, An Enquiry into the Information that Physical Science can Supply about the Real*, Cambridge, University Press, 1914, pp. xii. 388.

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VIII.—PHILOSOPHICAL PERIODICALS.

Philosophical Review. Vol. xxiii., Heft No. 4. **B. H. Bode.** 'The Psychological Doctrine of Focus and Margin.' [Psychology can be saved only by a behaviourism which regards the body and its stimulus as correlative factors or components.] **W. Fite.** 'Pragmatism and Science. —I.' [Kant's humanism was cut short by blind reverence for the Newtonian physics, which meant in his psychology a separation of reason and desire. Pragmatist logic is cut short at instrumentalism, which (since the man of science is the typical absolutist) means an unholy alliance with absolutism.] **A. C. Armstrong.** 'Bergson, Berkeley, and Philosophical Intuition.' [Challenges Bergson's interpretation in *L'intuition Philosophique;* it is wrong to overlook the integral elements of the system.] Reviews of Books. Notices of New Books. Summaries of Articles. Notes.

Psychological Review. Vol. xxi., No. 3. **H. Carr.** 'Principles of Selection in Animal Learning.' [Selection depends on the relative recency, frequency and intensity of the successful act, not on pleasure-pain.] **G. van N. Dearborn.** 'Certain further Factors in the Physiology of Euphoria.' [Euphoric coenæsthesis depends largely on nutritional and sympathetic influences from the active intestinal villi, on kinæsthesis proper, and on epicritic (dermal) impulses.] **W. Healy.** 'A Pictorial Completion Test.' [Describes a visual analogue of Ebbinghaus's *Combinationsmethode.* A point of clinical importance is that adult performance, simply scored, may be worse than normal child-performance.] **E. P. Frost.** 'Cannot Psychology Dispense with Consciousness?' [An attempt to express the facts of consciousness, in the sense of awareness, in terms of physiological functioning (nervous arcs).] **W. J. M. A. Maloney.** 'The Mechanism of Mental Processes as Revealed in Reckoning.' [Analysis of errors made in a certain mode of continuous adding (errors of sequence, factorisation, copying, completion). Suppression of digits is an active mental process, inhibiting association and reproduction.] Vol. xxi., No. 4. **W. S. Hunter.** 'The After-Effects of Visual Motion.' [The factors involved are retinal changes (probably after-images), associative processes, and strains in the eye-muscles.] **M. Barrett.** 'A Comparison of the Order of Merit Method and the Method of Paired Comparisons.' [The two methods are equally efficient; the former is preferable as making less demand of time and energy and as assigning its own rank to every member of the series.] **F. L. Wells.** 'The Systematic Observation of the Personality, in its Relation to the Hygiene of Mind.' [Since mental adaptation is the constructive problem of psychology, it is useful to distinguish the essential factors in the adjustment of personality to environment and to mark off healthy from unhealthy reactions. The writer describes five personalities under fourteen rubrics derived (with change and revision) from the Guide of Hoch and Amsden.]

American Journal of Psychology. Vol. xxv., No. 2. **G. S. Hall.**

'A Synthetic Genetic Study of Fear.—I.' [The root-function of mind is affectivity; as soon as there is registration and revival of pain, fear arises. The diathesis is heritable, and the species are very numerous; nearly 150 phobias have been distinguished.—Fear of shock and the *paror nocturnus* are discussed in detail.] **J. M. Fletcher.** 'An Experimental Study of Stuttering.' [Stuttering manifests itself in irregularities of breathing, vocalisation and articulation; in tonic and clonic conditions of muscles not used in speech; in disturbances of pulse-rate, blood distribution, and psychogalvanic symptoms. All asthenic emotions, moods, attitudes, favour stuttering; distraction of attention from speech and certain forms of excitement relieve it.] **W. B. Cannon.** 'The Interrelations of Emotions as Suggested by Recent Physiological Researches.' [The cranial division of the autonomic system builds up and restores the organic reserves; the sacral serves racial continuity; the thoracic-lumbar preserves the individual. In rage, fear, pain the adrenal glands pour out an increased secretion, which mobilises energy-giving sugar, rapidly dispels the effects of fatigue, and shifts the blood to the vital organs. In view of the uniformity of visceral reaction, the cerebral reverberation must be adjudged more important for psychology.] **J. S. Moore.** 'The Articulation of the Concepts of Normal and Abnormal Psychology.' [A complete science of psychology may be worked out from the concepts of the Complex and of Personality as an integration of complexes.] Minor Studies from the Psychological Laboratory of Vassar College. **H. M. Potter, R. Tuttle, M. F. Washburn.**—'xxiv. The Speed of Affective Judgments.' [Judgments of indifference are longest, of extreme pleasantness or unpleasantness shortest.] **M. M. Bacon, E. A. Rood, M. F. Washburn.**—'xxv. A Study of Affective Contrast.' [Contrast shows itself most strongly in series without knowledge.] **H. Adler, M. Williams, M. F. Washburn.**—'xxvi. The Correlation between Accuracy of the Visual Memory After-Image and Control of Visual Imagery.' No correlation under the conditions.] **E. B. Titchener.** 'Laboratory Notes.' [Figures a demonstration of the obliterative picture-pattern of the tiger.] **E. B. Titchener.** 'A Note on *Sensation* and *Sentiment*.' [Shows that from Malebranche to Rabier pleasure-pain is termed *sensation*.] Book Reviews. Book Notes. **E. J. G. Bradford.** 'Communication.' Necrology. [Dürr, Huey, Pierce, Smith.]

Journal of Philosophy, Psychology and Scientific Methods. xi., 1. **M. T. McClure.** 'An Orientation to the Study of Perception.' [Infers from a historical survey that "so long as ideas, or sensations, or mental states are taken to be the immediate objects of knowledge, the relation between sensations and an outside world becomes a problem," and that to avoid artificiality a new point of departure and a new method of approach are needed.] **G. C. Cox.** 'The Case Method in Ethics and Its Critics.' [Reply to Overstreet in x., 17, and Powell in x., 18.]—xi., 2. **H. C. Brown.** 'Value and Potentiality.' [A potentiality being "nothing but the thing itself in relation to some transformation either of itself or of its environment," "value is degree of adequacy of a potentiality to the realisation of the effect by virtue of which it is a potentiality". There is no evidence of values 'absolute' in the sense eternal, but value as a pure abstraction may be absolute provided that this is not asserted of concrete values. Values are not relative to purpose, but purpose is "a reaction of an organism in a world of values whereby some of them are selected or rejected".] **I. Aaronsen.** 'Perception.' [Perception is "an act of adjustment of a living organism that enables it to solve the problems set for it by its environment," "a progressive discovery of values or revelation of reality". It is "not a knowing, not an idea;

neither is it a complete overt act," though it *leads* to overt action and to knowledge.] **J. E. Turner.** 'Miss Calkins on Idealism and Realism.' [*Cf.* ix., 22, xi. 3.] Contains the Report on the Thirteenth Annual Meeting of the American Philosophical Association, by **H. C. Brown**, and the Report of the Committee of Inquiry of this Association and the American Psychological Association on the case of Prof. J. M. Mechlin who was dismissed from Lafayette College (a Presbyterian institution in Alabama) for using as text-books Angell's *Psychology*, Dewey and Tufts's *Ethics*, McDougall's *Social Psychology*, Ames's *Psychology of Religious Experience*, which were not considered 'conservatively Christian' enough, 'according to the standards of the type of Presbyterianism found in the Southern Presbyterian Church and in Princeton Seminary,' though the Professor was 'an ordained Presbyterian minister in good standing'.—xi., 4. 'Report by **M. E. Haggerty** on the Twenty-second Annual Meeting of the American Psychological Association.'—xi., 5. **W. H. Sheldon.** 'An Empirical Definition of Value.' [Seeing that the current accounts of Value are determined by the various views taken in general philosophy, the author tries "to obtain a definition in terms of the specific situations in which values are found," sensual, economic, æsthetic, moral, religious and intellectual, and concludes that "the value of an object consists in its helping to fulfil some tendency already present".] **E. K. Strong.** 'Two Factors which Influence Economical Learning.' [A psychological study stimulated by an endeavour "to determine how different intervals of time between presentations of a firm's advertisements affect the final permanent impression". "Four advertisements seen within a few minutes of each other create an impression 82% superior to that created by but one advertisement." But when they are seen at intervals of a week, the effect is 90% better, while at intervals of a month it falls to 45%. A day's interval is found to give the maximum results.] **W. B. Pitkin.** 'Concepts and Existence.' [Reply to W. T. Bush in x., 25.]—xi., 6. **R. B. Perry.** 'The Definition of Value.' [Thinks there is "something approaching unanimity that value in the generic sense has to do with a certain constant that we may call *bias* or *interest*," but also that "interests cannot be at the same time constitutive and cognitive of value".] **W. B. Cannon.** 'Recent Studies of Bodily Effects of Fear, Rage, and Pain.' [Emotional excitement and painful stimulation produce glycosuria, adrenal secretion restores efficiency after fatigue, adrenin hastens coagulation of the blood, and all these reactions increase efficiency.]—xi., 7.

THE INTERNATIONAL JOURNAL OF ETHICS. Vol. xxiv., No. 3. **C. D. Burns.** 'What is Religious Knowledge?' [Religious knowledge is not different in kind from scientific or philosophical knowledge. It is (1) systematised, but (2) poetically-expressed, knowledge.] **C. W. Super.** 'Ethics as a Science.' [Science has helped the social reformer to deal with such moral problems as poverty, sexual immorality, and war. The more scientific the practical science of Ethics becomes, the more progress it will make.] **A. B. Brown.** 'Intuition.' [Examines the theories of Plato, Aristotle, Spinoza, Hegel, and Bergson, and concludes that intuition is not primitive immediacy, but *σύνοψις* or "contuition".] **C. D. Broad.** 'The Doctrine of Consequences in Ethics.' [Criticises Moore and Russell, and defines an objectively right action as "one such that, if it be done, the total value of the universe will be at least as great as if any other possible alternative had been done by the agent".] **N. C. Mukerji.** 'Idealism and the Conception of Law in Morals.' [The Idealist criticism of Law is vitiated by ignorance of the meaning of character and moral end.] **F. J. Gould.** 'An Ethical Teacher's

American Tour.' Discussion. Book Reviews. Books Received. Announcements.

REVUE DE PHILOSOPHIE. 1er Mai, 1914. **J. Bulliot** et **M. Sérol.** 'La Philosophie et la pensée commune.' [The authors define the attitude to be assumed by philosophy towards (i.) the ideas and language of ordinary life, (ii.) the fundamental principles of common reason. These latter should be accepted in the first instance and made the basis and framework of the philosophical system, but the reflective reason has the right to analyse and criticise them.] **P. Duhem.** 'Le temps et le mouvement selon les Scolastiques (sixième article).' [Theories of Walter Burley, and of John Buridan and his disciples, as to the nature and measurement of time.] **P. Florian.** 'De Bacon à Newton : III.—La Société royale de Londres et les philosophes du xviie siècle.' [The Royal Society owed most to the influence of Bacon, who not only awakened the scientific spirit but provided a method and an object in research. Descartes and Gassendi also exercised great influence, the former however as a scientist only and not as a philosopher.] **G. Gondé.** 'Autour des Sciences occultes : Un Congrès dit "de Psychologie expérimentale".' [A criticism of the proceedings of the "Second Congress of Experimental Psychology" held at Paris in 1913.] **J. D.** 'Comment aborder un sujet de dissertation?' [A scheme of divisions and topics for a dissertation on a philosophical subject.]—1er Juin, 1914. **M. Chossat.** 'Saint Thomas d'Aquin et Siger de Brabant.' [Was the treatise of St. Thomas *De unitate intellectus contra Averroystas* a refutation of the *De anima intellectiva* of Siger? The author decides in the negative. St. Thomas's treatise is a refutation of a previous work of Siger, and the *De anima intellectiva* is Siger's answer to the refutation.] **P. Charles.** 'La métaphysique du Kantisme ; v. L'Analyse.' (Conclusion.) [Kant received from Leibnitz and continued to the end to hold the theory that *analytic* judgments alone are possible to the intellect as such. This is the fundamental error of Kantianism. The *synthetic a priori* judgments and the *schemata* were the result of Kant's reaction against the scepticism into which Hume, starting from the same premisses, was led.] **J. Maritain.** 'L'esprit de la philosophie moderne : I. La réforme cartésienne.' [Descartes gave a rational form to the anti-scholastic attitude which was the origin of the modern philosophies. In his theodicy Descartes separated completely theology and philosophy, and denied any true knowledge of God. His attitude was essentially *modernistic*.] **G. Gondé.** 'Autour des Sciences occultes : Un Congrès dit "de Psychologie expérimentale".' (Seconde article.) [Continuation of the criticism of the proceedings of the "Second Congress of Experimental Psychology".]—1er Juillet, 1914. **J. Bulliot.** 'Jean Buridan et le mouvement de la Terre. [A chapter from a hitherto unpublished work of Buridan *De Coelo* with a translation. Buridan here decides that the heavens move round the earth, and that the centre of gravity of the earth is its centre of figure.] **M. Chossat.** 'Saint Thomas d'Aquin et Siger de Brabant.' (Second article.) [Siger did not admit the identity of the intellect in all men, but was a "mitigated Averroist". The author also gives further reasons for the opinion that the *De unitate intellectus* of St. Thomas was not a refutation of Siger's *De anima intellectiva*.] **J. Maritain.** 'L'esprit de la philosophie moderne : II. L'independance de l'esprit.' [As modern philosophy has broken away from God, so it has broken away from external objects and from the ideal of unity. Descartes was in philosophy, as Luther in religion, the upholder of the liberty of the private judgment. This shown in Descartes' criterion of truth—the "clear idea". As a subjective criterion it renders objective truth inac-

cessible to the mind; as a personal criterion (like "the private judgment" in Protestantism) it is the cause of the divisions and dissensions of modern philosophy.]—1er Aout, 1914. **P. Duhem.** 'Le temps et le mouvement selon les Scolastiques.' (Septième et dernier article.) [Nicholas Bonet (and with him Gerardus Odonis) maintained that not only space but also time and motion were in reality composed of indivisible parts connected by common extremities. As conceived by the mind, however, space, time, and motion were continuous and indefinitely divisible. With regard to the absolute standard of time, Bonet and Grazadei d'Ascoli appear to have been the only schoolmen who held that this absolute standard had no objective existence, but was a mere mathematical abstraction.] **M. Gossard.** 'La notion péripatéticienne du mouvement et la science de l'énergie.' [The author traces an analogy between the modern idea of physical energy and the Aristotelian concept of motion which was that of *continuous change*. The explanation of the process of motion admitted by the schoolmen and founded upon the coexistence of contrary forms *in gradibus remissis* would not, however, be accepted by modern physicists.] **Dr. L. Pascault.** 'La douleur et le sens de la vie d'après Blanc de Saint-Bonet.' [De Saint-Bonet's solution of the problem of suffering. The natural effects of suffering and labour. The object of life is to afford an opportunity of combat for the free will and to show forth each man's deserts.]

Archives de Psychologie. Tome xiv., No. 2. **H. Lelesz.** 'L'orientation d'esprit dans le témoignage.' [Of the five types of observer—descriptive, superficial, intelligent, interpretative, ambitious—the intelligent holds the first, the interpretative the last place.] **C. Odier.** 'A propos d'un cas de contracture hystérique.' [Analysis of case, largely in Freudian terms. Hysteria depends upon a congenital tendency to mental dissociation, realised by some psycho-emotive trauma.] **E. Degallier.** 'Horlogérie et psychologie: plan d'études établi en vue d'une recherche des conditions les plus favorables à l'exercice d'un métier determiné et a son enseignement.' [Invites the attention of psychologists to the technique of watchmaking.] Recueil de Faits: Documents et Discussions. **K. Dunlap.** 'Les mouvements de l'oëil et la simultanéité d'impressions disparates périodiques.' [Reply to Michotte regarding the complication experiment.] **G. Berguer.** 'Note sur le langage du rêve.' [A purely verbal mechanism may be at work in dreams: against Freud.] **E. Partos.** 'Analyse d'une erreur scientifique: contribution à la psychologie du prestige.' [Discusses Abderhalden's serum diagnosis of pregnancy.] Bibliographie. Notes diverses.

Revue de Métaphysique et de Morale. Nov., 1913. **H. Höffding.** 'Sören Kierkegaard.' [An address on the centenary of a Danish religious philosopher and poet. He emphasised the importance of personality; divided possible modes of life into discontinuous stages, of which that represented by primitive Christianity is incomparably the highest; and entered into a controversy with official Christianity for its attempt to reconcile the religious with the lower stages of life.] **E. Goblot.** 'La Relation des Jugements.' [There are no true disjunctive judgments; what seem to be such are hypothetical. There is no division between judgments of inherence and those of relation; the apparent difference rests on mistaking the true subjects of the latter and forgetting that these can only be determined by considering what question the judgment answers. Universal judgments are really hypothetical and do not assert inherence. They must be distinguished from enumerative judgments of the same form; these are categorical. The distinction is important for

induction and the syllogism. Necessity involves generality, and generality ultimately rests on necessity; but it is only generality that is important for our reasonings. Affirmative hypotheticals are always universal, negatives ones particular, and *vice versa*.] **C. Radulescu-Motru.** 'La Conscience Transcendentale.' [Kant confuses the psychological identity of the individual consciousness with the mathematical identity of consciousness-in-general. His followers, by developing these two sides, land once more in empiricism or rationalism, each exaggerated by the Copernican revolution. Kant saw the distinction but failed to reconcile the differences. He tells us how consciousness-in-general reaches objective truth, but not what he means by this term, nor how the individual consciousness reaches it. The author dismisses attempts to solve this problem by Lange, Avenarius, Schopenhauer, Nietzsche, and Bergson, on the one hand, and by the Romantics, Hegel, and Durkheim on the other. The former he connects with the Kantian doctrine of schematism in time; the latter with the doctrine of genius in the *Critique of Judgment*. He rejects all these views and rests the solution on the fact that the *individual's* experience is itself fully determined and not fortuitous.] **T. Talayrach.** 'La Philosophie de l'Histoire de Julius Bahnsen.' [An attempt to reconstruct this from his published works, his journal, and an unpublished work called *Individuum und Geschichte*. Bahnsen was a pessimist. His journal contains many striking condemnations of Bismarck's policy, and he saw clearly that the enforced unity of Germany and the successes of the war meant the loss of much that was best in German character.] **Th. Ruyssen.** 'La Morale Sexuelle.' [Eminently balanced and sensible. (To be continued.)] **A. Lalande.** 'L'Individualisation de l'Impôt.' [Justice demands that the income tax should be reckoned not merely on the amount of the income, but that regard should be had to the number of persons which the income has to support.] Reviews of Books and Periodicals, etc.—Jan., 1914. **É. Boutroux.** 'Religion et Raison.' [Religion only conflicts with reason when the latter is taken solely as what is dealt with by formal logic.] **J. M. Carré.** 'Un Inedit de Fichte.' [A short account of the relations of the Wissenschaftslehre to the Kantian philosophy, written by Fichte for Henry Crabbe Robinson, and lately discovered among the latter's papers. Some information about Robinson's life in Germany is appended.] **X. Léon.** 'Le Socialisme de Fichte,' [An account of *Der Geschlossene Handelstaat*, a work dedicated by Fichte to Struensee, the Prussian Minister, at a time when Prussia was vacillating between Mercantilism and Free-trade. It attacks both; recommends a system of egalitarian State-socialism, and, to ensure its success, demands the abolition of all foreign trade by the suppression of all but token-money within the State. This prohibition is to be preceded by the State finding its natural boundaries, either by war or negotiation. (To be continued.)] **B. Lavergne.** 'La Répartition des Richesses. [Distribution, as treated by the classical economists, is really a part of Production. The real problems of Distribution do not belong to deductive economics but to social statistics.] **E. de Michelis.** 'Les Problèmes de la Logique selon F. Enriques. [An account of the views expressed in *Problemi della Scienza*. Science progresses by finding in the real world terms which more and more approximate to the conditions demanded by the laws of pure logic.] **A. Rivaud.** 'Textes inédits de Leibniz publiés par M. Ivan Jagodinsky.' [An account of some writings of Leibniz dating to 1675. They are mainly occupied with the principle of Harmony, with infinity, and with predication. Much of them is Spinozistic in tone, though there is always a fundamental difference.] **Th. Ruyssen.** 'La Morale Sexuelle.' [Concluded.] Reviews of Books and Periodicals, etc.—March, 1914. **L. Dugas.** 'La *Feuille*

de Charmelle de Jules Léquyer. [Original text, with variants.] **A. Schweitzer.** 'De la Logique générique des Mathématiques.' [Mathematical discovery needs more than mere deduction. A problem involves a conflict which is set at rest by discovering something that mediates between the two sides. Our search for mediators is subject to certain directive ideas, which are not peculiar to mathematics, but take a special form in it. And these can ultimately be reduced to the idea of comparison.] **X. Léon.** 'Le Socialisme de Fichte.' [Conclusion. Very similar views to Fichte's had been put forward in France by the Jacobin Baboeuf; and, though he was executed, the National Convention had to adopt many of his suggestions. Fichte would be aware of this, and therefore persuaded that his theories were immediately practicable. Struensee and his Prussian contemporaries thought otherwise.] **E. Laskine.** 'Les Transformations du Droit au xixe Siècle.' [Criticises M. Duguit's view that modern legal developments depart further and further from the position of the Code, which rests all rights and obligations on the free choices of individual wills. Duguit's objections can be met by taking volition and freedom in a wider sense than the Code contemplated. (To be continued.)] **G. Lechalas.** 'L'Arc-en-Ciel et les Peintres.' [A sign of the weakness of memory for colour is that rainbows are commonly represented even by good painters with the colours in the wrong order. Certain geometrical properties of rainbows are also ignored by almost all painters. **S. Ginzberg** et **L. Couturat.** 'A propos des Propositions particulières.' [A controversy as to the interpretation of 'some,' and the relation of Ginzberg's interpretation to the traditional logic.] **G. Guy-Grand.** 'Politique extérieure et Démocratie.' [An absolute monarchy can doubtless best carry out a foreign policy of force and expansion; but this is not the ethical ideal of a democracy, and therefore its comparative failure to carry it out is no reproach. Still all actual democracies have to recognise the opposite ideals of monarchical nations and act accordingly. And a democracy may desire an antidemocratic foreign policy, which its Ministers must then carry out as best they can.] Reviews of Books, Periodicals, etc.

Zeitschrift f. Psychologie. Bd. lxviii., Heft 5 und 6. **R. Liebenberg.** 'Über das Schätzen von Mengen.' [A study, qualitative and quantitative, of 'estimation,' the materials being dots of various colours, sizes and forms, shown in varying numbers and arrangements. Even numbers were preferred by the observers.] **A. Kuehn.** 'Über Einprägung durch Lesen und Rezitieren.' [Experiments with sense and nonsense material, the former both connected and disconnected, show that reciting (*i.e.*, any mode of repeating from memory) is superior to reading because in induces a more thorough and more varied working-over of the material. Except for observers of a strongly motor type, 'pure' reading is practically valueless.] Institut f. angewandte Psychologie.—Bd. lxix., Heft 1 und 2. **J. Pikler.** 'Empfindung und Vergleich.—II.' [Further explains the writer's theory of the additive nature of the process of comparison, and argues that sensation is not passively conditioned on stimulus but is the free expression of a faculty or tendency.] **E. Bleuler.** 'Psychische Kausalität und Willensakt.' [Psychical energy is identical with nervous energy, and there is no difference of principle between mental and neural causation. Mental reactions (as the act of will) may be explained in terms of inhibition and facilitation, if we assume a system of 'shunting' in the nervous system.] **G. Tichy.** 'Experimentelle Analyse der sog. Beaunisschen Würfel.' [Wundt's explanation holds; but in this complex figure associative factors play their part.] Literaturbericht. **P. Mies.** 'Zur Berichtigung.'

—Bd. lxix., Heft 3 und 4. **G. Rose.** 'Experimentelle Untersuchungen über das topische Gedächtnis.' [Experiments with lamps and illuminated syllables (one of the frames used gave 400 locally different exposures) undertaken to test Müller's hypothesis of a topical memory that is essentially visual but has pronounced motor accompaniments. The writer discusses the effect of grouping, of dark and light surroundings, the parts played by memory of form, by relative and egocentric localisation, etc.] **P. von Liebermann** und **G. Revesz.** 'Die binaurale Tonmischung.' [We have a tonal mixture analogous to colour mixture if (as in certain cases of paracusis) the monaural tones are alike in pitch but different in 'character'.] **V. Benussi.** 'Die Gestaltwahrnehmungen: Bemerkungen zu den gleichnämigen Untersuchungen K. Bühlers, Bd. i.' Besprechungen. **L. von Frankl-Hochwart.** 'Über die Einwirkung der Zirbeldrüsenzerstörung auf die Psyche: zusammenfassende Darstellung.' Literaturbericht.

Archiv f. d. gesamte Psychologie. Bd. xxxii., Heft 1 und 2. **E. Rignano.** 'Die Entwicklung des Raisonnements.' [Traces, in terms of the author's theory, the passage from concrete animal reasoning through affective and utilitarian to scientific classification, and from intuition to deductive reasoning.] **A. Messer.** 'Husserl's Phänomenologie in ihrem Verhältnis zur Psychologie.—II.' [There is no opposition of principle between the two disciplines.] **A. Berliner.** 'Subjektivität und Objektivität von Sinneseindrücken.' [The two sets of stimuli overlap; the objective extend through an indifference-zone into the field of subjectivity, and conversely. There are degrees of subjectivity and objectivity.] **F. Giese.** 'Das Ich als Komplex in der Psychologie.' [There are three ways of approach to the problem of the psychological self: the doctrine of temperaments and ethology, the doctrine of mental types, the method of correlation. The last is the most promising.] **E. Waiblinger.** 'Beiträge zur Feststellung des Tonfalls in den romanischen Sprachen.' [There are at least forty-six type-forms of melodic movement within the speech-measure.] **Boden.** 'Ein zivilprozessualer Aussageversuch.' [Experimental study, in terms of civil process, of the value of testimony regarding oral contracts.] **A. Messer.** 'Entgegnung' [Against Pfordten.] **E. Steinhard.** 'Bericht über den I. Kongress für Aesthetik und allgemeine Kunstwissenschaft in Berlin.' Literaturbericht. [Ruederer on Jaensch's *Sprachlaute*, Wilken on Ingenieros' *Psicología biológica*.]

Rivista di Filosofia. Anno v., Fasc. 4, September-October, 1913. **Roberto Ardigò.** 'Lo spirito aspetto specifico culminante dell'energia infunzione nell'organismo animale.' [Ardigò holds, like Spencer, that there is a unity of composition through all the ascending manifestations of consciousness from the most elementary feeling up to the most complicated processes of reasoning. But he is not, like Spencer, an agnostic in the sense of believing that reality must remain for ever unknown. He is a double-aspect ontologist, holding that consciousness and its object constitute two sides of the same everlasting energy. At the same time the very wording of his title seems to introduce the idea of relative values for which the double-aspect theory does not find a place. If mind ranks higher than elementary feeling, is not consciousness in general superior rather than parallel to the mechanical modes of motion?] **Bernardino Varisco.** 'L'individuo e l'uomo.' [According to Varisco individual self-consciousness involves the existence of other intelligences and of a world more or less common to all. By a somewhat summary argument he passes from this fact to the conclusion that if the world of phenomena has not existed from all eternity we must admit the existence

of a super-phenomenal personality on which the world of experience depends. This looks like a return from the impersonal 'Eternal Consciousness' of T. H. Green to the personal God of Berkeley and Ferrier.] **Enrico Morselli.** 'I limiti della coscienza.' [Science does not pretend to give more than a symbolical representation of reality. But without reaching the essence of things it keeps us better informed about what things are than mere feeling can. Love guided by reason is that on which our happiness depends.] **Michele Losacco.** 'Il concetto fondamentale delle Fenomenologie di Hegel.' [The Phenomenology is a dialetical history of consciousness first in its individual and then in its general development up to the point where subject and object are recognised as essentially identical through the agency of absolute knowledge.] Note critiche, rassegne, etc. [Noticeable among these is a long review of an Italian translation of Franz Cumont's book on the Oriental religions in their relation to pagan Rome, the most important section of which is a powerful attack on Croce's view of history.] Fasc. 5, November-December, 1913. **A. Faggi.** 'Del giudizio particulare.' [To say, as Aristotle does, that from the judgment Some As are B it necessarily follows that Some Bs are A is, Faggi holds, to assume without evidence that the coincidence of A and B is incomplete. In other words formal logic as tested by this example is useless without knowledge of things.] **F. Weiss.** 'Note Critiche alla *Filosofia dello Spirito* di Benedetto Croce.' [Continues with increasing asperity the criticism referred to above.] **G. M. Ferrari.** 'L'umanesimo filosofico,' [After a brilliant though rather diffuse account of Pragmatism, Ferrari goes on to describe Humanism, which—following Dr. Schiller, but without acknowledging the debt—he traces back to Protagoras, and describes as a philosophy that accepts and goes beyond the pragmatist principles, summing it up in these words: 'The philosophical problem has no meaning except for human beings striving to comprehend the universe of human experience with the help of the resources of human minds.'] **R. Resta.** 'Concetto d'una pedagogia.' [The art of education is not identified with any particular theory of existence, or of values, or of their combination, but has affinities with all, in so far as it is bound to inculcate the realisation of an ideal.] **A. Marchesini.** 'L'amicizia nella vita e nell'educazione'. [The excellent sentiments expressed in this article fall rather flat for want of a single concrete example. The only practical idea is that children, to learn friendship, should be sent to school, not brought up at home.] **M. B. Zanotti.** 'Saggio di una filosofiia dell'Individuazione.' The most remarkable idea in this article is contained in a short foot-note (p. 607) declaring that questions about the principle and end of reality admit of no answer, originating as they do in the mind which reality transcends.] Reviews of Books, etc.—Anno vi., Fasc. 1, January-February, 1914. **G. Vidari.** 'Esordio.' [Briefly sets forth the object of the Review, which is to supply a common ground without sectarian limitations, where thinkers of different schools may meet for comparison and mutual information.] **A. Faggi.** 'Ancora del giudizio particolare.' [The particular judgments of formal logic serve in reference to material knowledge both as a suggestion pointing the way to universal judgments and as a check on over-hasty generalisation.] **A. Ruesch.** 'Il settimo enigma.' [The seventh riddle of the universe, according to Dubois Regmond's numeration, turns on the question whether man's will is free or determined. The writer concludes for determinism—not, however, on the strength of the law of universal causation, but on psychological grounds.] **A. Tilgher.** 'Lineamenti, etici.' [To understand this essay, the author informs us, it is necessary to have studied various other essays leading up to it, of which he enumerates half-a-dozen as the most

important. But the conclusion printed here savours so much of the mystical German romanticism in fashion a century ago that few will care to plunge into it or into its precursors.] **M. Losacco.** 'Le assumzioni.' [This paper has for its object to introduce the Italian philosophical public to Meinong's inquiries into the psychological character of assumptions.] **M. Zanotti-Bianco.** 'Saggio di una filosofia dell' Individuazione.' [Here again the demand for unrestricted individual liberty reminds one of German romantic philosophy in its post-Fichtean and pre-Hegelian expression.] **P. Carabellese.** 'Il valore e la filosofia.' [A plea for the omnicompetence of philosophy in the sense of not reserving any theory of values as the particular domain of religious mysticism.] **A. Consorti.** 'Per una interpretazione delle forme curve degli organismi e vegetali.' **A.L.** 'Indifesa della filosofia del diritto.' **A. Gnesotto.** 'Del giudizio particolare.' Recensioni, etc.

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